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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 7 : C07K 14/435, C12N 15/12	A1	(11) International Publication Number: WO 00/21990 (43) International Publication Date: 20 April 2000 (20.04.00)

(21) International Application Number: PCT/US99/24205

(22) International Filing Date: 15 October 1999 (15.10.99)

(30) Priority Data:
60/104,435 15 October 1998 (15.10.98) US

(63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Application
US 60/104,435 (CIP)
Filed on 15 October 1998 (15.10.98)

(71) Applicant (*for all designated States except US*): GENETICS INSTITUTE, INC. [US/US]; 87 CambridgePark Drive, Cambridge, MA 02140 (US).

(72) Inventors; and
(75) Inventors/Applicants (*for US only*): JACOBS, Kenneth [US/US]; 151 Beaumont Avenue, Newton, MA 02160 (US). MCCOY, John, M. [GB/US]; 56 Howard Street, Reading, MA 01867 (US). LaVALLIE, Edward, R. [US/US]; 113 Ann Lee Road, Harvard, MA 01451 (US). COLLINS-RACIE, Lisa, A. [US/US]; 124 School Street, Acton, MA 01720 (US). EVANS, Cheryl [GB/US]; 18801 Bent Willow Circle, Germantown, MD 20874 (US). MERBERG, David [US/US]; 2 Orchard Drive, Acton, MA 01720 (US). TREACY, Maurice [IE/IE]; 12 Foxrock Court, Dublin 18 (IE).

(74) Agent: SPRUNGER, Suzanne, A.; American Home Products Corporation, Patent & Trademark Dept. – 2B, One Campus Drive, Parsippany, NJ 07054 (US).

(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published
With international search report.
Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: SECRETED EXPRESSED SEQUENCE TAGS (sESTs)

(57) Abstract

Secreted expressed sequence tags (sESTs) isolated from a variety of human tissue sources are provided.

FOR THE PURPOSES OF INFORMATION ONLY

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SECRETED EXPRESSED SEQUENCE TAGS (sESTs)

FIELD OF THE INVENTION

The present invention provides novel polynucleotides which are expressed sequence tags (ESTs) for secreted proteins.

BACKGROUND OF THE INVENTION

Gargantuan efforts have been employed by various investigational projects to randomly sequence portions of naturally-occurring cDNAs. The rationale behind this approach to identification and sequencing genes is founded in two basic principles: (1) that transcribed cDNAs represent the product of the most important genes, namely those that are actually expressed *in vivo*, and (2) that efforts to sequence genes and other portions of the genome of target organisms which are not actually expressed wastes substantial effort on areas not likely to yield genetic information of therapeutic importance. Thus, the high-throughput sequencing efforts focus on only those portions of the genome which are expressed. The randomly produced cDNA sequences represent "expressed sequence tags" or "ESTs", which identify and can be used as probes for the longer, full-length cDNA or genomic sequence from which they were transcribed.

Although this "shortcut" approach to genomic sequencing presents savings of effort compared to sequencing of the complete genome, it still produced a vast array of ESTs which may not be directly useful as protein therapeutics. To date, the majority of protein-related drug discovery has focused on the use of secreted proteins to produce a desired therapeutic effect. Since the EST approach theoretically identifies all expressed proteins, it produces an EST library which contains a mixture of secreted proteins (such as hormones, cytokines and receptors) and non-secreted proteins (such as, for example, metabolic enzymes and cellular structural proteins), without identifying which ESTs correspond to proteins falling into either category. As a result, these methods are not optimally tailored to the needs of investigators searching for secreted proteins because they must separate the secreted "wheat" from the non-secreted "chaff", wasting effort and resources in the process.

Co-assigned U.S. Patent No. 5,536,637, which is incorporated herein by reference, provides methods for focusing genomic sequencing efforts on sequences encoding the secreted proteins which are of most interest for identification of protein therapeutics. The '637 patent discloses a "signal sequence trap" which selectively identifies ESTs for secreted proteins, namely "secreted expressed sequence tags" or "sESTs". It is to these sESTs that the present invention is directed.

SUMMARY OF THE INVENTION

The present invention provides for sESTs isolated from a variety of human RNA/cDNA sources.

In preferred embodiments, the present invention provides an isolated polynucleotide comprising a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136,

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or a complement of said sequence.

In other embodiments, the present invention provides an isolated polynucleotide consisting of a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118,

SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ ID NO:160, SEQ ID NO:161, SEQ ID NO:162, SEQ ID NO:163, SEQ ID NO:164, SEQ ID NO:165, SEQ ID NO:166, SEQ ID NO:167, SEQ ID NO:168, SEQ ID NO:169, SEQ ID NO:170, SEQ ID NO:171, SEQ ID NO:172, SEQ ID NO:173, SEQ ID NO:174, SEQ ID NO:175, SEQ ID NO:176, SEQ ID NO:177, SEQ ID NO:178, SEQ ID NO:179, SEQ ID NO:180, SEQ ID NO:181, SEQ ID NO:182, SEQ ID NO:183, SEQ ID NO:184, SEQ ID NO:185, SEQ ID NO:186, SEQ ID NO:187, SEQ ID NO:188, SEQ ID NO:189, SEQ ID NO:190, SEQ ID NO:191, SEQ ID NO:192, SEQ ID NO:193, SEQ ID NO:194, SEQ ID NO:195, SEQ ID NO:196, SEQ ID NO:197, SEQ ID NO:198, SEQ ID NO:199, SEQ ID NO:200, SEQ ID NO:201, SEQ ID NO:202, SEQ ID NO:203, SEQ ID NO:204, SEQ ID NO:205, SEQ ID NO:206, SEQ ID NO:207, SEQ ID NO:208, SEQ ID NO:209, SEQ ID NO:210, SEQ ID NO:211, SEQ ID NO:212, SEQ ID NO:213, SEQ ID NO:214, SEQ ID NO:215, SEQ ID NO:216, SEQ ID NO:217, SEQ ID NO:218, SEQ ID NO:219, SEQ ID NO:220, SEQ ID NO:221, SEQ ID NO:222, SEQ ID NO:223, SEQ ID NO:224, SEQ ID NO:225, SEQ ID NO:226, SEQ ID NO:227, SEQ ID NO:228, SEQ ID NO:229, SEQ ID NO:230, SEQ ID NO:231, SEQ ID NO:232, SEQ ID NO:233, SEQ ID NO:234, SEQ ID NO:235, SEQ ID NO:236, SEQ ID NO:237, SEQ ID NO:238, SEQ ID NO:239, SEQ ID NO:240, SEQ ID NO:241, SEQ ID NO:242, SEQ ID NO:243, SEQ ID NO:244, SEQ ID NO:245, SEQ ID NO:246, SEQ ID NO:247, SEQ ID NO:248, SEQ ID NO:249, SEQ ID NO:250, SEQ ID NO:251, SEQ ID NO:252, SEQ ID NO:253, SEQ ID NO:254, SEQ ID NO:255, SEQ ID NO:256, SEQ ID NO:257, SEQ ID NO:258, SEQ ID NO:259, SEQ ID NO:260, SEQ ID NO:261, SEQ ID NO:262, SEQ ID NO:263, SEQ ID NO:264, SEQ ID NO:265, SEQ ID NO:266, SEQ ID NO:267, SEQ ID NO:268, SEQ ID NO:269, SEQ ID NO:270, SEQ ID NO:271,

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NO:2121, SEQ ID NO:2122, SEQ ID NO:2123, SEQ ID NO:2124, SEQ ID NO:2125, SEQ ID NO:2126, SEQ ID NO:2127, SEQ ID NO:2128, SEQ ID NO:2129, SEQ ID NO:2130, SEQ ID NO:2131, SEQ ID NO:2132, SEQ ID NO:2133, SEQ ID NO:2134, SEQ ID NO:2135, SEQ ID NO:2136, SEQ ID NO:2137, SEQ ID NO:2138, SEQ ID NO:2139, SEQ ID NO:2140, SEQ ID NO:2141, SEQ ID NO:2142, SEQ ID NO:2143, SEQ ID NO:2144, SEQ ID NO:2145, SEQ ID NO:2146, SEQ ID NO:2147, SEQ ID NO:2148, SEQ ID NO:2149, SEQ ID NO:2150, SEQ ID NO:2151, SEQ ID NO:2152, SEQ ID NO:2153, SEQ ID NO:2154, SEQ ID NO:2155, SEQ ID NO:2156, SEQ ID NO:2157, SEQ ID NO:2158, SEQ ID NO:2159;

or a complement of said sequence.

In further embodiments, the present invention provides an isolated polynucleotide consisting essentially of a nucleotide sequence selected from the group consisting of:

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NO:2105, SEQ ID NO:2106, SEQ ID NO:2107, SEQ ID NO:2108, SEQ ID NO:2109, SEQ ID NO:2110, SEQ ID NO:2111, SEQ ID NO:2112, SEQ ID NO:2113, SEQ ID NO:2114, SEQ ID NO:2115, SEQ ID NO:2116, SEQ ID NO:2117, SEQ ID NO:2118, SEQ ID NO:2119, SEQ ID NO:2120, SEQ ID NO:2121, SEQ ID NO:2122, SEQ ID NO:2123, SEQ ID NO:2124, SEQ ID NO:2125, SEQ ID NO:2126, SEQ ID NO:2127, SEQ ID NO:2128, SEQ ID NO:2129, SEQ ID NO:2130, SEQ ID NO:2131, SEQ ID NO:2132, SEQ ID NO:2133, SEQ ID NO:2134, SEQ ID NO:2135, SEQ ID NO:2136, SEQ ID NO:2137, SEQ ID NO:2138, SEQ ID NO:2139, SEQ ID NO:2140, SEQ ID NO:2141, SEQ ID NO:2142, SEQ ID NO:2143, SEQ ID NO:2144, SEQ ID NO:2145, SEQ ID NO:2146, SEQ ID NO:2147, SEQ ID NO:2148, SEQ ID NO:2149, SEQ ID NO:2150, SEQ ID NO:2151, SEQ ID NO:2152, SEQ ID NO:2153, SEQ ID NO:2154, SEQ ID NO:2155, SEQ ID NO:2156, SEQ ID NO:2157, SEQ ID NO:2158, SEQ ID NO:2159;

or a complement of said sequence.

In yet other embodiments, the present invention provides an isolated polynucleotide comprising a nucleotide sequence which hybridizes to a sequence selected from the group consisting of:

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NO:2089, SEQ ID NO:2090, SEQ ID NO:2091, SEQ ID NO:2092, SEQ ID NO:2093, SEQ ID NO:2094, SEQ ID NO:2095, SEQ ID NO:2096, SEQ ID NO:2097, SEQ ID NO:2098, SEQ ID NO:2099, SEQ ID NO:2100, SEQ ID NO:2101, SEQ ID NO:2102, SEQ ID NO:2103, SEQ ID NO:2104, SEQ ID NO:2105, SEQ ID NO:2106, SEQ ID NO:2107, SEQ ID NO:2108, SEQ ID NO:2109, SEQ ID NO:2110, SEQ ID NO:2111, SEQ ID NO:2112, SEQ ID NO:2113, SEQ ID NO:2114, SEQ ID NO:2115, SEQ ID NO:2116, SEQ ID NO:2117, SEQ ID NO:2118, SEQ ID NO:2119, SEQ ID NO:2120, SEQ ID NO:2121, SEQ ID NO:2122, SEQ ID NO:2123, SEQ ID NO:2124, SEQ ID NO:2125, SEQ ID NO:2126, SEQ ID NO:2127, SEQ ID NO:2128, SEQ ID NO:2129, SEQ ID NO:2130, SEQ ID NO:2131, SEQ ID NO:2132, SEQ ID NO:2133, SEQ ID NO:2134, SEQ ID NO:2135, SEQ ID NO:2136, SEQ ID NO:2137, SEQ ID NO:2138, SEQ ID NO:2139, SEQ ID NO:2140, SEQ ID NO:2141, SEQ ID NO:2142, SEQ ID NO:2143, SEQ ID NO:2144, SEQ ID NO:2145, SEQ ID NO:2146, SEQ ID NO:2147, SEQ ID NO:2148, SEQ ID NO:2149, SEQ ID NO:2150, SEQ ID NO:2151, SEQ ID NO:2152, SEQ ID NO:2153, SEQ ID NO:2154, SEQ ID NO:2155, SEQ ID NO:2156, SEQ ID NO:2157, SEQ ID NO:2158, SEQ ID NO:2159;

or to a complement of said sequence.

The invention also provides for proteins encoded by the above-described polynucleotides. In certain preferred embodiments, the polynucleotide is operably linked to an expression control sequence. The invention also provides a host cell, including bacterial, yeast, insect and mammalian cells, transformed with such polynucleotide compositions. Also provided by the present invention are organisms that have enhanced, reduced, or modified expression of the gene(s) corresponding to the polynucleotide sequences disclosed herein.

Processes are also provided for producing a protein, which comprise:

(a) growing a culture of the host cell transformed with such polynucleotide compositions in a suitable culture medium; and

(b) purifying the protein from the culture.

The protein produced according to such methods is also provided by the present invention.

Protein compositions of the present invention may further comprise a pharmaceutically acceptable carrier. Compositions comprising an antibody which specifically reacts with such protein are also provided by the present invention.

Methods are also provided for preventing, treating or ameliorating a medical condition which comprises administering to a mammalian subject a therapeutically effective amount of a composition comprising a protein of the present invention, and/or a polynucleotide of the present invention, and a pharmaceutically acceptable carrier.

DETAILED DESCRIPTION

The nucleotide sequences of the sESTs of the present invention are reported in the Sequence Listing below. Table 2 lists the "Clone ID Nos." assigned by applicants to each SEQ ID NO: in the Sequence Listing.

Table 2

Each pair of entries in this table consists of the SEQ ID NO (e.g., 1, 2, etc.) followed by the Clone ID No. for such sequence (e.g., AA239, AA249, etc.).

1	PP85	17	PQ98	33	PT138	49	PT212
2	PP9	18	PR113	34	PT141	50	PT214
3	PP95	19	PR24	35	PT144	51	PT215
4	PP96	20	PR47	36	PT148	52	PT217
5	PQ104	21	PR90	37	PT149	53	PT219
6	PQ109	22	PS46	38	PT150	54	PT228
7	PQ114	23	PS48	39	PT159	55	PT230
8	PQ12	24	PS51	40	PT16	56	PT233
9	PQ134	25	PS59	41	PT171	57	PT249
10	PQ15	26	PS66	42	PT179	58	PT259
11	PQ28	27	PT109	43	PT184	59	PT26
12	PQ29	28	PT11	44	PT189	60	PT268
13	PQ37	29	PT111	45	PT19	61	PT274
14	PQ59	30	PT115	46	PT195	62	PT282
15	PQ74	31	PT118	47	PT2	63	PT284
16	PQ9	32	PT127	48	PT204	64	PT285

65	PT293	99	PT398	133	PU164	167	PV110
66	PT295	100	PT403	134	PU165	168	PV119
67	PT296	101	PT409	135	PU169	169	PV126
68	PT298	102	PT434	136	PU199	170	PV138
69	PT301	103	PT435	137	PU2	171	PV143
70	PT307	104	PT437	138	PU214	172	PV149
71	PT31	105	PT442	139	PU220	173	PV16
72	PT310	106	PT444	140	PU226	174	PV163
73	PT315	107	PT446	141	PU234	175	PV174
74	PT318	108	PT448	142	PU235	176	PV177
75	PT324	109	PT449	143	PU237	177	PV183
76	PT326	110	PT450	144	PU258	178	PV192
77	PT328	111	PT451	145	PU26	179	PV193
78	PT330	112	PT453	146	PU261	180	PV198
79	PT332	113	PT455	147	PU264	181	PV203
80	PT334	114	PT457	148	PU274	182	PV205
81	PT343	115	PT464	149	PU276	183	PV210
82	PT346	116	PT57	150	PU280	184	PV213
83	PT347	117	PT65	151	PU282	185	PV214
84	PT348	118	PT67	152	PU289	186	PV23
85	PT35	119	PT71	153	PU291	187	PV231
86	PT354	120	PT82	154	PU307	188	PV235
87	PT355	121	PT97	155	PU312	189	PV269
88	PT357	122	PU100	156	PU314	190	PV282
89	PT358	123	PU101	157	PU43	191	PV286
90	PT364	124	PU107	158	PU56	192	PV291
91	PT365	125	PU113	159	PU61	193	PV294
92	PT367	126	PU116	160	PU71	194	PV296
93	PT375	127	PU117	161	PU77	195	PV297
94	PT38	128	PU123	162	PU85	196	PV30
95	PT381	129	PU124	163	PU86	197	PV306
96	PT383	130	PU134	164	PU89	198	PV313
97	PT385	131	PU139	165	PU96	199	PV316
98	PT387	132	PU142	166	PV107	200	PV323

201	PV327	235	PV663	269	PW344	303	PW50
202	PV330	236	PV679	270	PW345	304	PW503
203	PV339	237	PV70	271	PW356	305	PW504
204	PV343	238	PV700	272	PW359	306	PW508
205	PV347	239	PV715	273	PW369	307	PW524
206	PV35	240	PV72	274	PW370	308	PW528
207	PV371	241	PV721	275	PW378	309	PW540
208	PV383	242	PV725	276	PW381	310	PW567
209	PV390	243	PW102	277	PW394	311	PW587
210	PV398	244	PW11	278	PW398	312	PW588
211	PV439	245	PW114	279	PW4	313	PW60
212	PV45	246	PW120	280	PW403	314	PW66
213	PV472	247	PW123	281	PW410	315	PW73
214	PV475	248	PW159	282	PW417	316	PW75
215	PV510	249	PW170	283	PW418	317	PW95
216	PV511	250	PW186	284	PW422	318	PX100
217	PV512	251	PW192	285	PW429	319	PX103
218	PV53	252	PW195	286	PW430	320	PX115
219	PV534	253	PW214	287	PW435	321	PX125
220	PV535	254	PW245	288	PW437	322	PX129
221	PV548	255	PW26	289	PW445	323	PX135
222	PV549	256	PW267	290	PW447	324	PX146
223	PV560	257	PW269	291	PW448	325	PX151
224	PV58	258	PW27	292	PW452	326	PX155
225	PV581	259	PW271	293	PW453	327	PX166
226	PV585	260	PW288	294	PW459	328	PX169
227	PV59	261	PW3	295	PW460	329	PX202
228	PV6	262	PW303	296	PW463	330	PX207
229	PV623	263	PW311	297	PW471	331	PX223
230	PV635	264	PW320	298	PW475	332	PX225
231	PV64	265	PW328	299	PW482	333	PX51
232	PV640	266	PW335	300	PW491	334	PX54
233	PV65	267	PW337	301	PW496	335	PX60
234	PV662	268	PW341	302	PW498	336	PX73

337	PX75	371	PZ362	405	QB205	439	QB311
338	PX94	372	PZ388	406	QB208	440	QB32
339	PY10	373	Q13	407	QB211	441	QB326
340	PY133	374	Q153	408	QB212	442	QB344
341	PY156	375	Q172	409	QB214	443	QB360
342	PY16	376	Q303	410	QB216	444	QB370
343	PY184	377	Q513	411	QB217	445	QB375
344	PY187	378	Q66	412	QB22	446	QB379
345	PY195	379	Q691	413	QB221	447	QB389
346	PY202	380	Q719	414	QB232	448	QB39
347	PY215	381	Q725	415	QB235	449	QB393
348	PY220	382	QA133	416	QB24	450	QB395
349	PY239	383	QA136	417	QB241	451	QB397
350	PY251	384	QB10	418	QB242	452	QB401
351	PY254	385	QB120	419	QB245	453	QB405
352	PY256	386	QB122	420	QB246	454	QB44
353	PY260	387	QB131	421	QB25	455	QB56
354	PY27	388	QB132	422	QB251	456	QC109
355	PY34	389	QB135	423	QB252	457	QC113
356	PY38	390	QB136	424	QB254	458	QC12
357	PY39	391	QB146	425	QB257	459	QC126
358	PY40	392	QB149	426	QB259	460	QC133
359	PY46	393	QB152	427	QB26	461	QC146
360	PY54	394	QB153	428	QB264	462	QC147
361	PY7	395	QB164	429	QB271	463	QC152
362	PY9	396	QB165	430	QB280	464	QC156
363	PY97	397	QB184	431	QB282	465	QC16
364	PZ181	398	QB188	432	QB286	466	QC183
365	PZ243	399	QB196	433	QB287	467	QC190
366	PZ300	400	QB199	434	QB289	468	QC199
367	PZ311	401	QB2	435	QB299	469	QC215
368	PZ313	402	QB20	436	QB300	470	QC221
369	PZ331	403	QB200	437	QB301	471	QC226
370	PZ355	404	QB203	438	QB307	472	QC228

473	QC229	507	QC49	541	QD201	575	QF114
474	QC243	508	QC496	542	QD210	576	QF116
475	QC262	509	QC502	543	QD229	577	QF118
476	QC265	510	QC506	544	QD242	578	QF121
477	QC280	511	QC51	545	QD251	579	QF122
478	QC284	512	QC525	546	QD253	580	QF132
479	QC297	513	QC534	547	QD275	581	QF139
480	QC31	514	QC55	548	QD279	582	QF142
481	QC333	515	QC556	549	QD285	583	QF147
482	QC337	516	QC575	550	QD286	584	QF151
483	QC339	517	QC578	551	QD302	585	QF153
484	QC365	518	QC584	552	QD310	586	QF16
485	QC368	519	QC587	553	QD327	587	QF160
486	QC380	520	QC59	554	QD328	588	QF161
487	QC384	521	QC61	555	QD351	589	QF167
488	QC386	522	QC611	556	QD388	590	QF17
489	QC416	523	QC613	557	QD402	591	QF170
490	QC42	524	QC617	558	QD407	592	QF175
491	QC432	525	QC63	559	QD421	593	QF199
492	QC434	526	QC632	560	QD454	594	QF2
493	QC436	527	QC638	561	QD465	595	QF220
494	QC438	528	QC646	562	QD491	596	QF224
495	QC439	529	QC664	563	QD518	597	QF23
496	QC443	530	QC668	564	QD89	598	QF233
497	QC452	531	QC671	565	QD97	599	QF241
498	QC458	532	QC687	566	QE193	600	QF248
499	QC462	533	QC690	567	QE272	601	QF259
500	QC466	534	QC698	568	QE313	602	QF266
501	QC467	535	QC708	569	QE357	603	QF276
502	QC478	536	QC84	570	QE424	604	QF278
503	QC483	537	QD103	571	QF101	605	QF282
504	QC485	538	QD111	572	QF103	606	QF286
505	QC487	539	QD151	573	QF109	607	QF298
506	QC488	540	QD159	574	QF110	608	QF303

609	QF308	643	QF476	677	QF707	711	QG473
610	QF317	644	QF497	678	QF714	712	QG492
611	QF319	645	QF507	679	QF75	713	QG531
612	QF320	646	QF511	680	QF76	714	QG537
613	QF327	647	QF513	681	QF93	715	QG542
614	QF328	648	QF519	682	QF99	716	QG548
615	QF331	649	QF526	683	QG107	717	QG570
616	QF338	650	QF53	684	QG127	718	QG571
617	QF35	651	QF530	685	QG137	719	QG576
618	QF359	652	QF539	686	QG170	720	QG577
619	QF362	653	QF541	687	QG171	721	QG586
620	QF363	654	QF542	688	QG175	722	QG591
621	QF366	655	QF556	689	QG185	723	QG593
622	QF373	656	QF559	690	QG325	724	QG596
623	QF375	657	QF56	691	QG342	725	QG619
624	QF377	658	QF575	692	QG357	726	QG643
625	QF383	659	QF582	693	QG361	727	QH160
626	QF385	660	QF6	694	QG373	728	QH184
627	QF388	661	QF619	695	QG376	729	QH209
628	QF393	662	QF620	696	QG378	730	QH211
629	QF400	663	QF625	697	QG383	731	QH250
630	QF401	664	QF631	698	QG389	732	QH30
631	QF404	665	QF636	699	QG398	733	QH324
632	QF43	666	QF644	700	QG428	734	QH417
633	QF442	667	QF65	701	QG433	735	QH48
634	QF453	668	QF657	702	QG437	736	QH64
635	QF454	669	QF662	703	QG443	737	QL104
636	QF455	670	QF663	704	QG449	738	QL109
637	QF459	671	QF675	705	QG459	739	QL118
638	QF46	672	QF679	706	QG465	740	QL125
639	QF463	673	QF691	707	QG467	741	QL128
640	QF464	674	QF696	708	QG469	742	QL129
641	QF467	675	QF703	709	QG470	743	QL130
642	QF475	676	QF706	710	QG472	744	QL131

745	QL14	779	QO16	813	QS28	847	QU435
746	QL16	780	QO164	814	QS39	848	QU449
747	QL18	781	QO167	815	QS47	849	QU456
748	QL31	782	QO169	816	QS82	850	QU459
749	QL33	783	QO17	817	QS85	851	QU475
750	QL37	784	QO177	818	QT4	852	QU477
751	QL4	785	QO203	819	QT6	853	QU483
752	QL43	786	QO204	820	QU108	854	QU487
753	QL54	787	QO206	821	QU156	855	QU499
754	QL80	788	QO37	822	QU159	856	QU512
755	QL84	789	QO49	823	QU192	857	QU529
756	QL98	790	QO75	824	QU210	858	QU532
757	QM10	791	QO86	825	QU211	859	QU541
758	QM13	792	QO91	826	QU218	860	QU542
759	QM20	793	QR10	827	QU225	861	QU549
760	QM22	794	QR29	828	QU228	862	QU552
761	QM23	795	QR40	829	QU234	863	QU567
762	QM24	796	QR82	830	QU235	864	QU71
763	QM34	797	QR91	831	QU243	865	QU97
764	QM39	798	QS120	832	QU260	866	QU98
765	QM42	799	QS124	833	QU262	867	QV229
766	QM54	800	QS13	834	QU298	868	QV235
767	QM59	801	QS135	835	QU300	869	QV245
768	QM77	802	QS14	836	QU303	870	QV257
769	QM89	803	QS140	837	QU307	871	QV289
770	QN32	804	QS15	838	QU330	872	QV299
771	QN7	805	QS153	839	QU332	873	QV306
772	QO101	806	QS157	840	QU335	874	QV320
773	QO111	807	QS16	841	QU348	875	QV326
774	QO115	808	QS160	842	QU355	876	QV327
775	QO120	809	QS162	843	QU386	877	QV331
776	QO140	810	QS164	844	QU398	878	QV349
777	QO143	811	QS171	845	QU418	879	QV363
778	QO157	812	QS20	846	QU420	880	QV364

881	QV378	915	QY1261	949	QY1496	983	QY26
882	QV391	916	QY1263	950	QY1497	984	QY261
883	QV521	917	QY1268	951	QY15	985	QY266
884	QV530	918	QY1271	952	QY1515	986	QY269
885	QV531	919	QY1285	953	QY1517	987	QY271
886	QV538	920	QY1288	954	QY1555	988	QY277
887	QV549	921	QY129	955	QY1560	989	QY295
888	QX228	922	QY1299	956	QY1561	990	QY3
889	QX233	923	QY1306	957	QY1570	991	QY318
890	QX264	924	QY1309	958	QY1586	992	QY331
891	QX312	925	QY132	959	QY1593	993	QY338
892	QX317	926	QY1327	960	QY1597	994	QY349
893	QX338	927	QY1339	961	QY1608	995	QY356
894	QY100	928	QY1342	962	QY1609	996	QY359
895	QY1013	929	QY1344	963	QY1642	997	QY361
896	QY1042	930	QY1345	964	QY1645	998	QY385
897	QY1065	931	QY1346	965	QY1649	999	QY401
898	QY1068	932	QY1349	966	QY1660	1000	QY426
899	QY1073	933	QY1352	967	QY1662	1001	QY441
900	QY1075	934	QY1358	968	QY1681	1002	QY442
901	QY11	935	QY1361	969	QY1720	1003	QY444
902	QY1102	936	QY1369	970	QY1748	1004	QY448
903	QY1103	937	QY1376	971	QY1750	1005	QY45
904	QY1108	938	QY1379	972	QY1753	1006	QY450
905	QY1141	939	QY138	973	QY1754	1007	QY458
906	QY1175	940	QY1383	974	QY1755	1008	QY471
907	QY1180	941	QY1388	975	QY1756	1009	QY478
908	QY12	942	QY1394	976	QY1775	1010	QY502
909	QY1209	943	QY1418	977	QY1781	1011	QY51
910	QY1215	944	QY1437	978	QY189	1012	QY536
911	QY1221	945	QY1445	979	QY214	1013	QY550
912	QY1224	946	QY1462	980	QY220	1014	QY562
913	QY1256	947	QY1488	981	QY247	1015	QY566
914	QY1259	948	QY1495	982	QY257	1016	QY571

1017	QY593	1051	QZ452	1085	RB448	1119	RB806
1018	QY623	1052	QZ466	1086	RB485	1120	RB81
1019	QY644	1053	QZ484	1087	RB497	1121	RB810
1020	QY704	1054	QZ492	1088	RB513	1122	RB819
1021	QY720	1055	QZ498	1089	RB535	1123	RB822
1022	QY722	1056	RA1018	1090	RB540	1124	RB98
1023	QY740	1057	RA1121	1091	RB541	1125	RC11
1024	QY742	1058	RA138	1092	RB544	1126	RC14
1025	QY746	1059	RA281	1093	RB580	1127	RC21
1026	QY757	1060	RA475	1094	RB619	1128	RC29
1027	QY769	1061	RA562	1095	RB623	1129	RC3
1028	QY798	1062	RA574	1096	RB627	1130	RC37
1029	QY801	1063	RA618	1097	RB630	1131	RC57
1030	QY812	1064	RA726	1098	RB649	1132	RC58
1031	QY823	1065	RA885	1099	RB66	1133	RC60
1032	QY824	1066	RA892	1100	RB666	1134	RC65
1033	QY833	1067	RA900	1101	RB668	1135	RC7
1034	QY835	1068	RA905	1102	RB673	1136	RC76
1035	QY856	1069	RB126	1103	RB674	1137	RD1025
1036	QY859	1070	RB160	1104	RB688	1138	RD1027
1037	QY863	1071	RB164	1105	RB693	1139	RD103
1038	QY87	1072	RB198	1106	RB714	1140	RD1030
1039	QY880	1073	RB202	1107	RB727	1141	RD1039
1040	QY884	1074	RB206	1108	RB738	1142	RD1046
1041	QY89	1075	RB218	1109	RB749	1143	RD1049
1042	QY99	1076	RB231	1110	RB758	1144	RD1054
1043	QZ118	1077	RB312	1111	RB771	1145	RD1058
1044	QZ127	1078	RB313	1112	RB773	1146	RD1059
1045	QZ159	1079	RB342	1113	RB778	1147	RD1068
1046	QZ284	1080	RB382	1114	RB788	1148	RD1073
1047	QZ290	1081	RB40	1115	RB789	1149	RD1094
1048	QZ311	1082	RB409	1116	RB791	1150	RD1101
1049	QZ382	1083	RB419	1117	RB792	1151	RD1102
1050	QZ422	1084	RB422	1118	RB80	1152	RD1109

1153	RD1111	1187	RD542	1221	RD925	1255	RG184
1154	RD1124	1188	RD567	1222	RD942	1256	RG199
1155	RD1131	1189	RD569	1223	RD946	1257	RG200
1156	RD1141	1190	RD59	1224	RD954	1258	RG211
1157	RD1143	1191	RD592	1225	RD959	1259	RG219
1158	RD1147	1192	RD610	1226	RD960	1260	RG241
1159	RD1156	1193	RD616	1227	RD962	1261	RG246
1160	RD1158	1194	RD62	1228	RD966	1262	RG248
1161	RD1168	1195	RD649	1229	RD969	1263	RG272
1162	RD1179	1196	RD652	1230	RD989	1264	RG278
1163	RD1195	1197	RD67	1231	RD996	1265	RG287
1164	RD187	1198	RD680	1232	RD997	1266	RG296
1165	RD194	1199	RD76	1233	RE127	1267	RG299
1166	RD207	1200	RD775	1234	RE133	1268	RG315
1167	RD210	1201	RD778	1235	RE15	1269	RG325
1168	RD214	1202	RD786	1236	RE219	1270	RG33
1169	RD229	1203	RD788	1237	RE257	1271	RG333
1170	RD232	1204	RD792	1238	RE326	1272	RG342
1171	RD252	1205	RD798	1239	RE345	1273	RG348
1172	RD263	1206	RD8	1240	RE365	1274	RG352
1173	RD309	1207	RD807	1241	RE72	1275	RG353
1174	RD310	1208	RD810	1242	RF282	1276	RG367
1175	RD312	1209	RD811	1243	RF439	1277	RG390
1176	RD392	1210	RD825	1244	RF476	1278	RG407
1177	RD432	1211	RD826	1245	RF499	1279	RG409
1178	RD435	1212	RD852	1246	RF84	1280	RG419
1179	RD440	1213	RD853	1247	RG105	1281	RG445
1180	RD456	1214	RD863	1248	RG113	1282	RG447
1181	RD47	1215	RD870	1249	RG133	1283	RG452
1182	RD5	1216	RD876	1250	RG137	1284	RG453
1183	RD517	1217	RD902	1251	RG145	1285	RG473
1184	RD52	1218	RD913	1252	RG158	1286	RG48
1185	RD530	1219	RD917	1253	RG177	1287	RG481
1186	RD539	1220	RD918	1254	RG178	1288	RG482

1289	RG494	1323	RI130	1357	RJ497	1391	RJ897
1290	RG522	1324	RI21	1358	RJ499	1392	RJ898
1291	RG528	1325	RI231	1359	RJ504	1393	RJ900
1292	RG531	1326	RI91	1360	RJ507	1394	RJ903
1293	RG533	1327	RJ118	1361	RJ520	1395	RJ925
1294	RG539	1328	RJ137	1362	RJ525	1396	RJ95
1295	RG555	1329	RJ139	1363	RJ533	1397	RJ952
1296	RG563	1330	RJ150	1364	RJ545	1398	RJ965
1297	RG571	1331	RJ170	1365	RJ552	1399	RK100
1298	RG575	1332	RJ187	1366	RJ601	1400	RK115
1299	RG583	1333	RJ214	1367	RJ652	1401	RK137
1300	RG590	1334	RJ216	1368	RJ653	1402	RK144
1301	RG593	1335	RJ223	1369	RJ656	1403	RK170
1302	RG604	1336	RJ224	1370	RJ7	1404	RK211
1303	RG615	1337	RJ23	1371	RJ713	1405	RK216
1304	RG631	1338	RJ243	1372	RJ719	1406	RK23
1305	RG633	1339	RJ286	1373	RJ724	1407	RK253
1306	RG636	1340	RJ288	1374	RJ727	1408	RK255
1307	RG64	1341	RJ338	1375	RJ731	1409	RK260
1308	RG652	1342	RJ348	1376	RJ742	1410	RK265
1309	RG656	1343	RJ353	1377	RJ749	1411	RK28
1310	RG661	1344	RJ359	1378	RJ777	1412	RK41
1311	RG663	1345	RJ361	1379	RJ779	1413	RK47
1312	RG671	1346	RJ384	1380	RJ781	1414	RK59
1313	RH14	1347	RJ4	1381	RJ792	1415	RK65
1314	RH17	1348	RJ402	1382	RJ8	1416	RK80
1315	RH20	1349	RJ405	1383	RJ813	1417	RL106
1316	RH22	1350	RJ431	1384	RJ828	1418	RL121
1317	RH26	1351	RJ455	1385	RJ85	1419	RL122
1318	RH31	1352	RJ462	1386	RJ859	1420	RL128
1319	RH41	1353	RJ465	1387	RJ870	1421	RL146
1320	RH445	1354	RJ471	1388	RJ874	1422	RL15
1321	RH510	1355	RJ482	1389	RJ890	1423	RL151
1322	RI10	1356	RJ493	1390	RJ891	1424	RL169

1425	RL188	1459	RL862	1493	RT1	1527	RU198
1426	RL19	1460	RL87	1494	RT104	1528	RU199
1427	RL245	1461	RL884	1495	RT11	1529	RU204
1428	RL266	1462	RL885	1496	RT113	1530	RU220
1429	RL295	1463	RL886	1497	RT12	1531	RU233
1430	RL310	1464	RL905	1498	RT120	1532	RU244
1431	RL334	1465	RL957	1499	RT138	1533	RU255
1432	RL336	1466	RL967	1500	RT15	1534	RU286
1433	RL341	1467	RL969	1501	RT16	1535	RU288
1434	RL344	1468	RL979	1502	RT28	1536	RU292
1435	RL356	1469	RM19	1503	RT34	1537	RU294
1436	RL359	1470	RM26	1504	RT40	1538	RU327
1437	RL360	1471	RN14	1505	RT42	1539	RU330
1438	RL379	1472	RN17	1506	RT63	1540	RU333
1439	RL397	1473	RN43	1507	RT69	1541	RU355
1440	RL455	1474	RN46	1508	RT70	1542	RU375
1441	RL465	1475	RN55	1509	RT85	1543	RU388
1442	RL487	1476	RN65	1510	RT88	1544	RU391
1443	RL498	1477	RN75	1511	RT89	1545	RU50
1444	RL52	1478	RN81	1512	RT96	1546	RU71
1445	RL565	1479	RN82	1513	RU11	1547	RU80
1446	RL579	1480	RN85	1514	RU12	1548	RV106
1447	RL606	1481	RP123	1515	RU120	1549	RV122
1448	RL645	1482	RP146	1516	RU13	1550	RV144
1449	RL655	1483	RP161	1517	RU135	1551	RV15
1450	RL693	1484	RP33	1518	RU14	1552	RV175
1451	RL718	1485	RP34	1519	RU140	1553	RV21
1452	RL721	1486	RP57	1520	RU146	1554	RV228
1453	RL743	1487	RP81	1521	RU147	1555	RV239
1454	RL749	1488	RP87	1522	RU15	1556	RV247
1455	RL808	1489	RQ15	1523	RU157	1557	RV252
1456	RL83	1490	RR19	1524	RU172	1558	RV263
1457	RL832	1491	RR20	1525	RU179	1559	RV271
1458	RL840	1492	RS2	1526	RU182	1560	RV296

1561	RV298	1595	RV805	1629	RX205	1663	RX536
1562	RV305	1596	RV880	1630	RX209	1664	RX538
1563	RV310	1597	RV9	1631	RX213	1665	RX554
1564	RV319	1598	RW109	1632	RX22	1666	RX66
1565	RV422	1599	RW123	1633	RX245	1667	RX90
1566	RV465	1600	RW193	1634	RX249	1668	RY140
1567	RV476	1601	RW197	1635	RX252	1669	RY152
1568	RV48	1602	RW253	1636	RX255	1670	RY193
1569	RV49	1603	RW257	1637	RX263	1671	RY24
1570	RV490	1604	RW278	1638	RX282	1672	RY25
1571	RV498	1605	RW290	1639	RX294	1673	RY295
1572	RV504	1606	RW302	1640	RX314	1674	RY297
1573	RV524	1607	RW344	1641	RX322	1675	RY307
1574	RV555	1608	RW38	1642	RX326	1676	RY328
1575	RV576	1609	RW382	1643	RX332	1677	RY35
1576	RV579	1610	RW440	1644	RX363	1678	RY385
1577	RV598	1611	RW447	1645	RX373	1679	RY394
1578	RV612	1612	RW456	1646	RX375	1680	RY418
1579	RV627	1613	RW464	1647	RX392	1681	RY429
1580	RV634	1614	RW480	1648	RX40	1682	RY438
1581	RV635	1615	RW488	1649	RX417	1683	RY450
1582	RV637	1616	RW51	1650	RX419	1684	RY465
1583	RV643	1617	RW513	1651	RX431	1685	RY47
1584	RV656	1618	RW520	1652	RX443	1686	RY471
1585	RV681	1619	RW58	1653	RX466	1687	RY496
1586	RV705	1620	RW661	1654	RX478	1688	RY535
1587	RV707	1621	RW693	1655	RX479	1689	RY551
1588	RV72	1622	RW84	1656	RX487	1690	RY580
1589	RV724	1623	RX127	1657	RX491	1691	RY674
1590	RV759	1624	RX166	1658	RX499	1692	RY675
1591	RV778	1625	RX176	1659	RX510	1693	RY681
1592	RV796	1626	RX18	1660	RX527	1694	RY80
1593	RV801	1627	RX185	1661	RX528	1695	RY81
1594	RV803	1628	RX192	1662	RX534	1696	RZ126

1697	RZ129	1731	SA139	1765	SB15	1799	SC265
1698	RZ142	1732	SA140	1766	SB171	1800	SC271
1699	RZ16	1733	SA323	1767	SB172	1801	SC273
1700	RZ221	1734	SA33	1768	SB20	1802	SC294
1701	RZ224	1735	SA331	1769	SB228	1803	SC296
1702	RZ226	1736	SA34	1770	SB230	1804	SC298
1703	RZ262	1737	SA361	1771	SB236	1805	SC318
1704	RZ304	1738	SA404	1772	SB250	1806	SC341
1705	RZ323	1739	SA481	1773	SB256	1807	SC359
1706	RZ361	1740	SA488	1774	SB276	1808	SC370
1707	RZ405	1741	SA493	1775	SB280	1809	SC382
1708	RZ409	1742	SA508	1776	SB342	1810	SC394
1709	RZ411	1743	SA537	1777	SB36	1811	SC40
1710	RZ425	1744	SA539	1778	SB39	1812	SC401
1711	RZ435	1745	SA543	1779	SB44	1813	SC404
1712	RZ44	1746	SA569	1780	SB49	1814	SC46
1713	RZ454	1747	SA570	1781	SB66	1815	SC58
1714	RZ514	1748	SA576	1782	SB86	1816	SC59
1715	RZ527	1749	SA601	1783	SC115	1817	SC88
1716	RZ553	1750	SA624	1784	SC117	1818	SC89
1717	RZ568	1751	SA627	1785	SC136	1819	SD55
1718	RZ599	1752	SA629	1786	SC144	1820	SE42
1719	RZ610	1753	SA638	1787	SC145	1821	SE71
1720	RZ627	1754	SA643	1788	SC163	1822	SF120
1721	RZ664	1755	SA649	1789	SC164	1823	SF124
1722	RZ670	1756	SA664	1790	SC17	1824	SF125
1723	RZ692	1757	SA679	1791	SC173	1825	SF138
1724	RZ698	1758	SA74	1792	SC176	1826	SF146
1725	RZ730	1759	SA79	1793	SC193	1827	SF156
1726	S1	1760	SB12	1794	SC199	1828	SF172
1727	S199	1761	SB123	1795	SC209	1829	SF173
1728	SA120	1762	SB147	1796	SC226	1830	SF180
1729	SA122	1763	SB148	1797	SC244	1831	SF184
1730	SA124	1764	SB149	1798	SC245	1832	SF206

1833	SF222	1867	SF59	1901	SG352	1935	WG63
1834	SF226	1868	SF592	1902	SG77	1936	WG67
1835	SF240	1869	SF601	1903	T85	1937	WG75
1836	SF245	1870	SF608	1904	V207	1938	WG76
1837	SF249	1871	SF624	1905	V222	1939	WG77
1838	SF265	1872	SF626	1906	WA109	1940	WG9
1839	SF275	1873	SF637	1907	WA118	1941	WG90
1840	SF286	1874	SF67	1908	WA129	1942	WG93
1841	SF292	1875	SF69	1909	WA135	1943	WG94
1842	SF302	1876	SF78	1910	WA15	1944	WH101
1843	SF303	1877	SF98	1911	WA153	1945	WH110
1844	SF307	1878	SG1	1912	WA154	1946	WH113
1845	SF309	1879	SG122	1913	WA545	1947	WH114
1846	SF315	1880	SG124	1914	WC73	1948	WH117
1847	SF339	1881	SG126	1915	WC74	1949	WH119
1848	SF34	1882	SG127	1916	WC88	1950	WH120
1849	SF340	1883	SG148	1917	WF2	1951	WH128
1850	SF348	1884	SG15	1918	WF3	1952	WH129
1851	SF371	1885	SG169	1919	WF4	1953	WH13
1852	SF379	1886	SG213	1920	WG14	1954	WH130
1853	SF401	1887	SG243	1921	WG21	1955	WH133
1854	SF429	1888	SG261	1922	WG24	1956	WH135
1855	SF442	1889	SG262	1923	WG26	1957	WH140
1856	SF444	1890	SG272	1924	WG30	1958	WH142
1857	SF445	1891	SG275	1925	WG31	1959	WH146
1858	SF465	1892	SG281	1926	WG32	1960	WH150
1859	SF472	1893	SG293	1927	WG34	1961	WH155
1860	SF497	1894	SG295	1928	WG39	1962	WH16
1861	SF499	1895	SG312	1929	WG41	1963	WH169
1862	SF50	1896	SG334	1930	WG44	1964	WH17
1863	SF517	1897	SG335	1931	WG53	1965	WH170
1864	SF553	1898	SG345	1932	WG55	1966	WH175
1865	SF577	1899	SG347	1933	WG59	1967	WH178
1866	SF582	1900	SG35	1934	WG62	1968	WH179

1969	WH180	2003	WI143	2037	WJ200	2071	WL554
1970	WH181	2004	WI144	2038	WJ202	2072	WL556
1971	WH185	2005	WI145	2039	WJ231	2073	WL560
1972	WH200	2006	WI150	2040	WJ233	2074	WL561
1973	WH204	2007	WI152	2041	WJ236	2075	WL566
1974	WH209	2008	WI156	2042	WJ238	2076	WL567
1975	WH211	2009	WI168	2043	WJ243	2077	WL570
1976	WH214	2010	WI173	2044	WJ245	2078	WL580
1977	WH216	2011	WI175	2045	WJ248	2079	WL582
1978	WH219	2012	WI178	2046	WJ275	2080	WL637
1979	WH22	2013	WI18	2047	WJ289	2081	WL644
1980	WH224	2014	WI181	2048	WJ291	2082	WL647
1981	WH230	2015	WI232	2049	WJ295	2083	WL657
1982	WH26	2016	WI233	2050	WJ296	2084	WL663
1983	WH27	2017	WI234	2051	WJ301	2085	WL664
1984	WH3	2018	WI239	2052	WK159	2086	WL666
1985	WH30	2019	WI243	2053	WK168	2087	Z107
1986	WH39	2020	WI244	2054	WK172	2088	Z123
1987	WH40	2021	WI246	2055	WK174	2089	Z132
1988	WH43	2022	WI248	2056	WK177	2090	Z134
1989	WH44	2023	WI251	2057	WK178	2091	Z135
1990	WH47	2024	WI257	2058	WK185	2092	Z139
1991	WI1	2025	WI265	2059	WK199	2093	Z145
1992	WI108	2026	WI266	2060	WK200	2094	Z217
1993	WI109	2027	WI267	2061	WK215	2095	Z218
1994	WI114	2028	WI268	2062	WK220	2096	Z243
1995	WI116	2029	WI270	2063	WK225	2097	Z250
1996	WI119	2030	WI44	2064	WK228	2098	Z253
1997	WI12	2031	WI9	2065	WK234	2099	Z254
1998	WI125	2032	WI96	2066	WK247	2100	Z256
1999	WI13	2033	WJ168	2067	WL503	2101	Z260
2000	WI131	2034	WJ176	2068	WL508	2102	Z286
2001	WI139	2035	WJ192	2069	WL519	2103	Z287
2002	WI142	2036	WJ193	2070	WL546	2104	Z288

2105	Z294	2139	Z729
2106	Z320	2140	Z738
2107	Z327	2141	Z743
2108	Z328	2142	Z747
2109	Z338	2143	Z748
2110	Z343	2144	Z749
2111	Z372	2145	Z750
2112	Z391	2146	Z756
2113	Z415	2147	Z768
2114	Z450	2148	Z769
2115	Z459	2149	Z792
2116	Z469	2150	Z805
2117	Z480	2151	Z806
2118	Z497	2152	Z837
2119	Z504	2153	Z843
2120	Z577	2154	Z847
2121	Z584	2155	Z852
2122	Z590	2156	Z856
2123	Z594	2157	Z864
2124	Z599	2158	Z865
2125	Z603	2159	Z871
2126	Z607		
2127	Z610		
2128	Z617		
2129	Z624		
2130	Z631		
2131	Z633		
2132	Z654		
2133	Z656		
2134	Z660		
2135	Z666		
2136	Z674		
2137	Z677		
2138	Z719		

The "Clone ID No." for a particular clone consists of one or two letters followed by a number. The letters designate the tissue source from which the sEST was isolated. Table 3 below lists the various sources which were run through applicants' signal sequence trap. Thus, the tissue source for a particular sEST sequence can be identified in Table 3 by the one and two letter designations used in the relevant "Clone ID No." in Table 2. For example, a clone designated as "PP85" would have been isolated from a human adult blood (lymphoblastic leukemia MOLT-4) library (i.e., selection "PP") as indicated in Table 3.

As used herein, "polynucleotide" includes single- and double-stranded RNAs, DNAs and RNA:DNA hybrids.

As used herein a "secreted" protein is one which, when expressed in a suitable host cell, is transported across or through a membrane, including transport as a result of signal sequences in its amino acid sequence. "Secreted" proteins include without limitation proteins secreted wholly (e.g., soluble proteins) or partially (e.g., receptors) from the cell in which they are expressed. "Secreted" proteins also include without limitation proteins which are transported across the membrane of the endoplasmic reticulum.

Fragments of the proteins of the present invention which are capable of exhibiting biological activity are also encompassed by the present invention. Fragments of the protein may be in linear form or they may be cyclized using known methods, for example, as described in H.U. Saragovi, *et al.*, Bio/Technology 10, 773-778 (1992) and in R.S. McDowell, *et al.*, J. Amer. Chem. Soc. 114, 9245-9253 (1992), both of which are incorporated herein by reference. Such fragments may be fused to carrier molecules such as immunoglobulins for many purposes, including increasing the valency of protein binding sites. For example, fragments of the protein may be fused through "linker" sequences to the Fc portion of an immunoglobulin. For a bivalent form of the protein, such a fusion could be to the Fc portion of an IgG molecule. Other immunoglobulin isotypes may also be used to generate such fusions. For example, a protein - IgM fusion would generate a decavalent form of the protein of the invention.

The present invention also provides both full-length and mature forms of the disclosed proteins. The full-length form of the such proteins is identified in the sequence listing by translation of the nucleotide sequence of each disclosed clone. The mature form(s) of such protein may be obtained by expression of the disclosed

full-length polynucleotide (preferably those deposited with ATCC) in a suitable mammalian cell or other host cell. The sequence(s) of the mature form(s) of the protein may also be determinable from the amino acid sequence of the full-length form.

The present invention also provides genes corresponding to the polynucleotide sequences disclosed herein. "Corresponding genes" are the regions of the genome that are transcribed to produce the mRNAs from which cDNA polynucleotide sequences are derived and may include contiguous regions of the genome necessary for the regulated expression of such genes. Corresponding genes may therefore include but are not limited to coding sequences, 5' and 3' untranslated regions, alternatively spliced exons, introns, promoters, enhancers, and silencer or suppressor elements. The corresponding genes can be isolated in accordance with known methods using the sequence information disclosed herein. Such methods include the preparation of probes or primers from the disclosed sequence information for identification and/or amplification of genes in appropriate genomic libraries or other sources of genomic materials. An "isolated gene" is a gene that has been separated from the adjacent coding sequences, if any, present in the genome of the organism from which the gene was isolated.

The chromosomal location corresponding to the polynucleotide sequences disclosed herein may also be determined, for example by hybridizing appropriately labeled polynucleotides of the present invention to chromosomes *in situ*. It may also be possible to determine the corresponding chromosomal location for a disclosed polynucleotide by identifying significantly similar nucleotide sequences in public databases, such as expressed sequence tags (ESTs), that have already been mapped to particular chromosomal locations. For at least some of the polynucleotide sequences disclosed herein, public database sequences having at least some similarity to the polynucleotide of the present invention have been listed by database accession number. Searches using the GenBank accession numbers of these public database sequences can then be performed at an Internet site provided by the National Center for Biotechnology Information having the address www.ncbi.nlm.nih.gov/UniGene, in order to identify "UniGene clusters" of overlapping sequences. Many of the "UniGene clusters" so identified will already have been mapped to particular chromosomal sites.

Organisms that have enhanced, reduced, or modified expression of the gene(s) corresponding to the polynucleotide sequences disclosed herein are provided. The desired change in gene expression can be achieved through the use of antisense polynucleotides or ribozymes that bind and/or cleave the mRNA transcribed from the gene (Albert and Morris, 1994, *Trends Pharmacol. Sci.* **15(7)**: 250-254; Lavarosky *et al.*, 1997, *Biochem. Mol. Med.* **62(1)**: 11-22; and Hampel, 1998, *Prog. Nucleic Acid Res. Mol. Biol.* **58**: 1-39; all of which are incorporated by reference herein). Transgenic animals that have multiple copies of the gene(s) corresponding to the polynucleotide sequences disclosed herein, preferably produced by transformation of cells with genetic constructs that are stably maintained within the transformed cells and their progeny, are provided. Transgenic animals that have modified genetic control regions that increase or reduce gene expression levels, or that change temporal or spatial patterns of gene expression, are also provided (see European Patent No. 0 649 464 B1, incorporated by reference herein). In addition, organisms are provided in which the gene(s) corresponding to the polynucleotide sequences disclosed herein have been partially or completely inactivated, through insertion of extraneous sequences into the corresponding gene(s) or through deletion of all or part of the corresponding gene(s). Partial or complete gene inactivation can be accomplished through insertion, preferably followed by imprecise excision, of transposable elements (Plasterk, 1992, *Bioessays* **14(9)**: 629-633; Zwaal *et al.*, 1993, *Proc. Natl. Acad. Sci. USA* **90(16)**: 7431-7435; Clark *et al.*, 1994, *Proc. Natl. Acad. Sci. USA* **91(2)**: 719-722; all of which are incorporated by reference herein), or through homologous recombination, preferably detected by positive/negative genetic selection strategies (Mansour *et al.*, 1988, *Nature* **336**: 348-352; U.S. Patent Nos. 5,464,764; 5,487,992; 5,627,059; 5,631,153; 5,614, 396; 5,616,491; and 5,679,523; all of which are incorporated by reference herein). These organisms with altered gene expression are preferably eukaryotes and more preferably are mammals. Such organisms are useful for the development of non-human models for the study of disorders involving the corresponding gene(s), and for the development of assay systems for the identification of molecules that interact with the protein product(s) of the corresponding gene(s).

Where the protein of the present invention is membrane-bound (e.g., is a receptor), the present invention also provides for soluble forms of such protein. In such forms part or all of the intracellular and transmembrane domains of the protein

are deleted such that the protein is fully secreted from the cell in which it is expressed. The intracellular and transmembrane domains of proteins of the invention can be identified in accordance with known techniques for determination of such domains from sequence information.

Proteins and protein fragments of the present invention include proteins with amino acid sequence lengths that are at least 25%(more preferably at least 50%, and most preferably at least 75%) of the length of a disclosed protein and have at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least 90% or 95% identity) with that disclosed protein, where sequence identity is determined by comparing the amino acid sequences of the proteins when aligned so as to maximize overlap and identity while minimizing sequence gaps. Also included in the present invention are proteins and protein fragments that contain a segment preferably comprising 8 or more (more preferably 20 or more, most preferably 30 or more) contiguous amino acids that shares at least 75% sequence identity (more preferably, at least 85% identity; most preferably at least 95% identity) with any such segment of any of the disclosed proteins.

In particular, sequence identity may be determined using WU-BLAST (Washington University BLAST) version 2.0 software, which builds upon WU-BLAST version 1.4, which in turn is based on the public domain NCBI-BLAST version 1.4 (Altschul and Gish, 1996, Local alignment statistics, Doolittle *ed.*, *Methods in Enzymology* **266**: 460-480; Altschul *et al.*, 1990, Basic local alignment search tool, *Journal of Molecular Biology* **215**: 403-410; Gish and States, 1993, Identification of protein coding regions by database similarity search, *Nature Genetics* **3**: 266-272; Karlin and Altschul, 1993, Applications and statistics for multiple high-scoring segments in molecular sequences, *Proc. Natl. Acad. Sci. USA* **90**: 5873-5877; all of which are incorporated by reference herein). WU-BLAST version 2.0 executable programs for several UNIX platforms can be downloaded from the Internet file-transfer protocol (FTP) site ftp://blast.wustl.edu/blast/executables. The complete suite of search programs (BLASTP, BLASTN, BLASTX, TBLASTN, and TBLASTX) is provided at that site, in addition to several support programs. WU-BLAST 2.0 is copyrighted and may not be sold or redistributed in any form or manner without the express written consent of the author; but the posted executables

may otherwise be freely used for commercial, nonprofit, or academic purposes. In all search programs in the suite -- BLASTP, BLASTN, BLASTX, TBLASTN and TBLASTX -- the gapped alignment routines are integral to the database search itself, and thus yield much better sensitivity and selectivity while producing the more easily interpreted output. Gapping can optionally be turned off in all of these programs, if desired. The default penalty (Q) for a gap of length one is Q=9 for proteins and BLASTP, and Q=10 for BLASTN, but may be changed to any integer value including zero, one through eight, nine, ten, eleven, twelve through twenty, twenty-one through fifty, fifty-one through one hundred, etc. The default per-residue penalty for extending a gap (R) is R=2 for proteins and BLASTP, and R=10 for BLASTN, but may be changed to any integer value including zero, one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve through twenty, twenty-one through fifty, fifty-one through one hundred, etc. Any combination of values for Q and R can be used in order to align sequences so as to maximize overlap and identity while minimizing sequence gaps. The default amino acid comparison matrix is BLOSUM62, but other amino acid comparison matrices such as PAM can be utilized.

Species homologues of the disclosed polynucleotides and proteins are also provided by the present invention. As used herein, a "species homologue" is a protein or polynucleotide with a different species of origin from that of a given protein or polynucleotide, but with significant sequence similarity to the given protein or polynucleotide. Preferably, polynucleotide species homologues have at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least 90% identity) with the given polynucleotide, and protein species homologues have at least 30% sequence identity (more preferably, at least 45% identity; most preferably at least 60% identity) with the given protein, where sequence identity is determined by comparing the nucleotide sequences of the polynucleotides or the amino acid sequences of the proteins when aligned so as to maximize overlap and identity while minimizing sequence gaps. Species homologues may be isolated and identified by making suitable probes or primers from the sequences provided herein and screening a suitable nucleic acid source from the desired species. Preferably, species homologues are those isolated from mammalian species. Most preferably, species homologues are those isolated from certain mammalian species such as, for example,

Pan troglodytes, Gorilla gorilla, Pongo pygmaeus, Hylobates concolor, Macaca mulatta, Papio papio, Papio hamadryas, Cercopithecus aethiops, Cebus capucinus, Aotus trivirgatus, Sanguinus oedipus, Microcebus murinus, Mus musculus, Rattus norvegicus, Cricetulus griseus, Felis catus, Mustela vison, Canis familiaris, Oryctolagus cuniculus, Bos taurus, Ovis aries, Sus scrofa, and *Equus caballus*, for which genetic maps have been created allowing the identification of syntenic relationships between the genomic organization of genes in one species and the genomic organization of the related genes in another species (O'Brien and Seuánez, 1988, *Ann. Rev. Genet.* **22**: 323-351; O'Brien *et al.*, 1993, *Nature Genetics* 3:103-112; Johansson *et al.*, 1995, *Genomics* **25**: 682-690; Lyons *et al.*, 1997, *Nature Genetics* **15**: 47-56; O'Brien *et al.*, 1997, *Trends in Genetics* **13(10)**: 393-399; Carver and Stubbs, 1997, *Genome Research* 7:1123-1137; all of which are incorporated by reference herein).

The invention also encompasses allelic variants of the disclosed polynucleotides or proteins; that is, naturally-occurring alternative forms of the isolated polynucleotides which also encode proteins which are identical or have significantly similar sequences to those encoded by the disclosed polynucleotides. Preferably, allelic variants have at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least 90% identity) with the given polynucleotide, where sequence identity is determined by comparing the nucleotide sequences of the polynucleotides when aligned so as to maximize overlap and identity while minimizing sequence gaps. Allelic variants may be isolated and identified by making suitable probes or primers from the sequences provided herein and screening a suitable nucleic acid source from individuals of the appropriate species.

The invention also includes polynucleotides with sequences complementary to those of the polynucleotides disclosed herein.

The present invention also includes polynucleotides that hybridize under reduced stringency conditions, more preferably stringent conditions, and most preferably highly stringent conditions, to polynucleotides described herein. Examples of stringency conditions are shown in the table below: highly stringent conditions are those that are at least as stringent as, for example, conditions A-F; stringent conditions are at least as stringent as, for example, conditions G-L; and reduced stringency conditions are at least as stringent as, for example, conditions M-R.

Stringency Condition	Polynucleotide Hybrid	Hybrid Length (bp)‡	Hybridization Temperature and Buffer†	Wash Temperature and Buffer†
A	DNA:DNA	≥ 50	65°C; 1xSSC -or- 42°C; 1xSSC, 50% formamide	65°C; 0.3xSSC
B	DNA:DNA	<50	T_B*; 1xSSC	T_B*; 1xSSC
C	DNA:RNA	≥ 50	67°C; 1xSSC -or- 45°C; 1xSSC, 50% formamide	67°C; 0.3xSSC
D	DNA:RNA	<50	T_D*; 1xSSC	T_D*; 1xSSC
E	RNA:RNA	≥ 50	70°C; 1xSSC -or- 50°C; 1xSSC, 50% formamide	70°C; 0.3xSSC
F	RNA:RNA	<50	T_F*; 1xSSC	T_F*; 1xSSC
G	DNA:DNA	≥ 50	65°C; 4xSSC -or- 42°C; 4xSSC, 50% formamide	65°C; 1xSSC
H	DNA:DNA	<50	T_H*; 4xSSC	T_H*; 4xSSC
I	DNA:RNA	≥ 50	67°C; 4xSSC -or- 45°C; 4xSSC, 50% formamide	67°C; 1xSSC
J	DNA:RNA	<50	T_J*; 4xSSC	T_J*; 4xSSC
K	RNA:RNA	≥ 50	70°C; 4xSSC -or- 50°C; 4xSSC, 50% formamide	67°C; 1xSSC
L	RNA:RNA	<50	T_L*; 2xSSC	T_L*; 2xSSC
M	DNA:DNA	≥ 50	50°C; 4xSSC -or- 40°C; 6xSSC, 50% formamide	50°C; 2xSSC
N	DNA:DNA	<50	T_N*; 6xSSC	T_N*; 6xSSC
O	DNA:RNA	≥ 50	55°C; 4xSSC -or- 42°C; 6xSSC, 50% formamide	55°C; 2xSSC
P	DNA:RNA	<50	T_P*; 6xSSC	T_P*; 6xSSC
Q	RNA:RNA	≥ 50	60°C; 4xSSC -or- 45°C; 6xSSC, 50% formamide	60°C; 2xSSC
R	RNA:RNA	<50	T_R*; 4xSSC	T_R*; 4xSSC

‡: The hybrid length is that anticipated for the hybridized region(s) of the hybridizing polynucleotides. When hybridizing a polynucleotide to a target polynucleotide of unknown sequence, the hybrid length is assumed to be that of the hybridizing polynucleotide. When polynucleotides of known sequence are hybridized, the hybrid length can be determined by aligning the sequences of the polynucleotides and identifying the region or regions of optimal sequence complementarity.

†: SSPE (1xSSPE is 0.15M NaCl, 10mM NaH_2PO_4, and 1.25mM EDTA, pH 7.4) can be substituted for SSC (1xSSC is 0.15M NaCl and 15mM sodium citrate) in the hybridization and wash buffers; washes are performed for 15 minutes after hybridization is complete.

*T_B - T_R: The hybridization temperature for hybrids anticipated to be less than 50 base pairs in length should be 5-10°C less than the melting temperature (T_m) of the hybrid, where T_m is determined according to the following equations. For hybrids less than 18 base pairs in length, T_m(°C) = 2(# of A + T bases) + 4(# of G + C bases). For hybrids between 18 and 49 base

pairs in length, $T_m(°C) = 81.5 + 16.6(\log_{10}[Na^+]) + 0.41(\%G+C) - (600/N)$, where N is the number of bases in the hybrid, and $[Na^+]$ is the concentration of sodium ions in the hybridization buffer ($[Na^+]$ for 1xSSC = 0.165 M).

Additional examples of stringency conditions for polynucleotide hybridization are provided in Sambrook, J., E.F. Fritsch, and T. Maniatis, 1989, *Molecular Cloning: A Laboratory Manual*, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY, chapters 9 and 11, and *Current Protocols in Molecular Biology*, 1995, F.M. Ausubel et al., eds., John Wiley & Sons, Inc., sections 2.10 and 6.3-6.4, incorporated herein by reference.

Preferably, each such hybridizing polynucleotide has a length that is at least 25%(more preferably at least 50%, and most preferably at least 75%) of the length of the polynucleotide of the present invention to which it hybridizes, and has at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least 90% or 95% identity) with the polynucleotide of the present invention to which it hybridizes, where sequence identity is determined by comparing the sequences of the hybridizing polynucleotides when aligned so as to maximize overlap and identity while minimizing sequence gaps.

The isolated polynucleotide of the invention may contain sequences at its 5′ and/or 3′ end that are derived from linker, polylinker, or multiple cloning site sequences commonly found in vectors such as the pMT2 or pED expression vectors (see below). For example, sequences such as SEQ ID NO:2160, SEQ ID NO:2161, or SEQ ID NO:2162 may be found at the 5′ end of an isolated polynucleotide of the invention, or the complement of any of these sequences may be found at its 3′ end. Similarly, sequences such as SEQ ID NO:2163, SEQ ID NO:2164, or SEQ ID NO:2165 may be found at the 3′ end of an isolated polynucleotide of the invention, or the complement of any of these sequences may be found at its 5′ end. In addition, variants of these linker sequences may be present in isolated polynucleotides of the invention, which linker variants vary from SEQ ID NO:2160 through SEQ ID NO:2165 by the alteration, insertion, or deletion of one or more nucleotides. Therefore, a preferred embodiment of the invention comprises the nucleotide sequence of any of the isolated polynucleotides disclosed herein, beginning at nucleotide 25 and ending at nucleotide (N-25) of the SEQ ID NO for that polynucleotide, where N represents the total number of nucleotides in the sequence. As a specific example, a preferred embodiment of the invention comprises the nucleotide sequence of SEQ ID NO:1

from nucleotide 25 to nucleotide 180, where the total number of nucleotides (N) in SEQ ID NO:1 is 205, and N-25 equals 180. More preferably, a polynucleotide of the invention comprises the nucleotide sequence of any of the isolated polynucleotides disclosed herein, beginning at nucleotide 30 and ending at nucleotide (N-30) of the SEQ ID NO for that polynucleotide. Most preferably, a polynucleotide of the invention comprises the nucleotide sequence of any of the isolated polynucleotides disclosed herein, beginning at nucleotide 35 and ending at nucleotide (N-35) of the SEQ ID NO for that polynucleotide.

The isolated polynucleotide of the invention may be operably linked to an expression control sequence such as the pMT2 or pED expression vectors disclosed in Kaufman *et al.*, Nucleic Acids Res. 19, 4485-4490 (1991), in order to produce the protein recombinantly. Many suitable expression control sequences are known in the art. General methods of expressing recombinant proteins are also known and are exemplified in R. Kaufman, Methods in Enzymology 185, 537-566 (1990). As defined herein "operably linked" means that the isolated polynucleotide of the invention and an expression control sequence are situated within a vector or cell in such a way that the protein is expressed by a host cell which has been transformed (transfected) with the ligated polynucleotide/expression control sequence.

A number of types of cells may act as suitable host cells for expression of the protein. Mammalian host cells include, for example, monkey COS cells, Chinese Hamster Ovary (CHO) cells, human kidney 293 cells, human epidermal A431 cells, human Colo205 cells, 3T3 cells, CV-1 cells, other transformed primate cell lines, normal diploid cells, cell strains derived from in vitro culture of primary tissue, primary explants, HeLa cells, mouse L cells, BHK, HL-60, U937, HaK or Jurkat cells.

Alternatively, it may be possible to produce the protein in lower eukaryotes such as yeast or in prokaryotes such as bacteria. Potentially suitable yeast strains include *Saccharomyces cerevisiae*, *Schizosaccharomyces pombe*, *Kluyveromyces* strains, *Candida*, or any yeast strain capable of expressing heterologous proteins. Potentially suitable bacterial strains include *Escherichia coli*, *Bacillus subtilis*, *Salmonella typhimurium*, or any bacterial strain capable of expressing heterologous proteins. If the protein is made in yeast or bacteria, it may be necessary to modify the protein produced therein, for example by phosphorylation or glycosylation of the appropriate sites, in order to obtain the functional protein. Such covalent attachments may be accomplished using known chemical or enzymatic methods.

The protein may also be produced by operably linking the isolated polynucleotide of the invention to suitable control sequences in one or more insect expression vectors, and employing an insect expression system. Materials and methods for baculovirus/insect cell expression systems are commercially available in kit form from, *e.g.*, Invitrogen, San Diego, California, U.S.A. (the MaxBac® kit), and such methods are well known in the art, as described in Summers and Smith, Texas Agricultural Experiment Station Bulletin No. 1555 (1987), incorporated herein by reference. As used herein, an insect cell capable of expressing a polynucleotide of the present invention is "transformed."

The protein of the invention may be prepared by culturing transformed host cells under culture conditions suitable to express the recombinant protein. The resulting expressed protein may then be purified from such culture (i.e., from culture medium or cell extracts) using known purification processes, such as gel filtration and ion exchange chromatography. The purification of the protein may also include an affinity column containing agents which will bind to the protein; one or more column steps over such affinity resins as concanavalin A-agarose, heparin-toyopearl® or Cibacrom blue 3GA Sepharose®; one or more steps involving hydrophobic interaction chromatography using such resins as phenyl ether, butyl ether, or propyl ether; or immunoaffinity chromatography.

Alternatively, the protein of the invention may also be expressed in a form which will facilitate purification. For example, it may be expressed as a fusion protein, such as those of maltose binding protein (MBP), glutathione-S-transferase (GST) or thioredoxin (TRX). Kits for expression and purification of such fusion proteins are commercially available from New England BioLabs (Beverly, MA), Pharmacia (Piscataway, NJ) and Invitrogen Corporation (Carlsbad, CA), respectively. The protein can also be tagged with an epitope and subsequently purified by using a specific antibody directed to such epitope. One such epitope ("Flag") is commercially available from the Eastman Kodak Company (New Haven, CT).

Finally, one or more reverse-phase high performance liquid chromatography (RP-HPLC) steps employing hydrophobic RP-HPLC media, e.g., silica gel having pendant methyl or other aliphatic groups, can be employed to further purify the protein. Some or all of the foregoing purification steps, in various combinations, can also be employed to provide a substantially homogeneous isolated recombinant

protein. The protein thus purified is substantially free of other mammalian proteins and is defined in accordance with the present invention as an "isolated protein."

The protein of the invention may also be expressed as a product of transgenic animals, e.g., as a component of the milk of transgenic cows, goats, pigs, or sheep which are characterized by somatic or germ cells containing a nucleotide sequence encoding the protein.

The protein may also be produced by known conventional chemical synthesis. Methods for constructing the proteins of the present invention by synthetic means are known to those skilled in the art. The synthetically-constructed protein sequences, by virtue of sharing primary, secondary or tertiary structural and/or conformational characteristics with proteins may possess biological properties in common therewith, including protein activity. Thus, they may be employed as biologically active or immunological substitutes for natural, purified proteins in screening of therapeutic compounds and in immunological processes for the development of antibodies.

The proteins provided herein also include proteins characterized by amino acid sequences similar to those of purified proteins but into which modification are naturally provided or deliberately engineered. For example, modifications in the peptide or DNA sequences can be made by those skilled in the art using known techniques. Modifications of interest in the protein sequences may include the alteration, substitution, replacement, insertion or deletion of a selected amino acid residue in the coding sequence. For example, one or more of the cysteine residues may be deleted or replaced with another amino acid to alter the conformation of the molecule. Techniques for such alteration, substitution, replacement, insertion or deletion are well known to those skilled in the art (see, e.g., U.S. Patent No. 4,518,584). Preferably, such alteration, substitution, replacement, insertion or deletion retains the desired activity of the protein.

Other fragments and derivatives of the sequences of proteins which would be expected to retain protein activity in whole or in part and may thus be useful for screening or other immunological methodologies may also be easily made by those skilled in the art given the disclosures herein. Such modifications are believed to be encompassed by the present invention.

USES AND BIOLOGICAL ACTIVITY

The polynucleotides and proteins of the present invention are expected to exhibit one or more of the uses or biological activities (including those associated with assays cited herein) identified below. Uses or activities described for proteins of the present invention may be provided by administration or use of such proteins or by administration or use of polynucleotides encoding such proteins (such as, for example, in gene therapies or vectors suitable for introduction of DNA).

Research Uses and Utilities

The polynucleotides provided by the present invention can be used by the research community for various purposes. The primary use of polynucleotides of the invention which are sESTs is as porbes for the identification and isolation of full-length cDNAs and genomic DNA molecules which correspond (i.e., is a longer polynucleotide sequence of which substantially the entire sEST is a fragment in the case of a full-length cDNA, or which encodes the sEST in the case of a genomic DNA molecule) to such sESTs. Techniques for use of such sequences as probes for larger cDNAs or genomic molecules are well known in the art.

The polynucleotides can also be used to express recombinant protein for analysis, characterization or therapeutic use; as markers for tissues in which the corresponding protein is preferentially expressed (either constitutively or at a particular stage of tissue differentiation or development or in disease states); as molecular weight markers on Southern gels; as chromosome markers or tags (when labeled) to identify chromosomes or to map related gene positions; to compare with endogenous DNA sequences in patients to identify potential genetic disorders; as probes to hybridize and thus discover novel, related DNA sequences; as a source of information to derive PCR primers for genetic fingerprinting; as a probe to "subtract-out" known sequences in the process of discovering other novel polynucleotides; for selecting and making oligomers for attachment to a "gene chip" or other support, including for examination of expression patterns; to raise anti-protein antibodies using DNA immunization techniques; and as an antigen to raise anti-DNA antibodies or elicit another immune response. Where the polynucleotide encodes a protein which binds or potentially binds to another protein (such as, for example, in a receptor-ligand interaction), the polynucleotide can also be used in interaction trap assays (such as, for example, that described in Gyuris et al., Cell 75:791-803 (1993)) to

identify polynucleotides encoding the other protein with which binding occurs or to identify inhibitors of the binding interaction.

The proteins provided by the present invention can similarly be used in assay to determine biological activity, including in a panel of multiple proteins for high-throughput screening; to raise antibodies or to elicit another immune response; as a reagent (including the labeled reagent) in assays designed to quantitatively determine levels of the protein (or its receptor) in biological fluids; as markers for tissues in which the corresponding protein is preferentially expressed (either constitutively or at a particular stage of tissue differentiation or development or in a disease state); and, of course, to isolate correlative receptors or ligands. Where the protein binds or potentially binds to another protein (such as, for example, in a receptor-ligand interaction), the protein can be used to identify the other protein with which binding occurs or to identify inhibitors of the binding interaction. Proteins involved in these binding interactions can also be used to screen for peptide or small molecule inhibitors or agonists of the binding interaction.

Any or all of these research utilities are capable of being developed into reagent grade or kit format for commercialization as research products.

Methods for performing the uses listed above are well known to those skilled in the art. References disclosing such methods include without limitation "Molecular Cloning: A Laboratory Manual", 2d ed., Cold Spring Harbor Laboratory Press, Sambrook, J., E.F. Fritsch and T. Maniatis eds., 1989, and "Methods in Enzymology: Guide to Molecular Cloning Techniques", Academic Press, Berger, S.L. and A.R. Kimmel eds., 1987.

Nutritional Uses

Polynucleotides and proteins of the present invention can also be used as nutritional sources or supplements. Such uses include without limitation use as a protein or amino acid supplement, use as a carbon source, use as a nitrogen source and use as a source of carbohydrate. In such cases the protein or polynucleotide of the invention can be added to the feed of a particular organism or can be administered as a separate solid or liquid preparation, such as in the form of powder, pills, solutions, suspensions or capsules. In the case of microorganisms, the protein or polynucleotide of the invention can be added to the medium in or on which the microorganism is cultured.

Cytokine and Cell Proliferation/Differentiation Activity

A protein of the present invention may exhibit cytokine, cell proliferation (either inducing or inhibiting) or cell differentiation (either inducing or inhibiting) activity or may induce production of other cytokines in certain cell populations. Many protein factors discovered to date, including all known cytokines, have exhibited activity in one or more factor dependent cell proliferation assays, and hence the assays serve as a convenient confirmation of cytokine activity. The activity of a protein of the present invention is evidenced by any one of a number of routine factor dependent cell proliferation assays for cell lines including, without limitation, 32D, DA2, DA1G, T10, B9, B9/11, BaF3, MC9/G, M+ (preB M+), 2E8, RB5, DA1, 123, T1165, HT2, CTLL2, TF-1, Mo7e and CMK.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assays for T-cell or thymocyte proliferation include without limitation those described in: Current Protocols in Immunology, Ed by J. E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 3, In Vitro assays for Mouse Lymphocyte Function 3.1-3.19; Chapter 7, Immunologic studies in Humans); Takai et al., J. Immunol. 137:3494-3500, 1986; Bertagnolli et al., J. Immunol. 145:1706-1712, 1990; Bertagnolli et al., Cellular Immunology 133:327-341, 1991; Bertagnolli, et al., J. Immunol. 149:3778-3783, 1992; Bowman et al., J. Immunol. 152: 1756-1761, 1994.

Assays for cytokine production and/or proliferation of spleen cells, lymph node cells or thymocytes include, without limitation, those described in: Polyclonal T cell stimulation, Kruisbeek, A.M. and Shevach, E.M. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 3.12.1-3.12.14, John Wiley and Sons, Toronto. 1994; and Measurement of mouse and human Interferon γ, Schreiber, R.D. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.8.1-6.8.8, John Wiley and Sons, Toronto. 1994.

Assays for proliferation and differentiation of hematopoietic and lymphopoietic cells include, without limitation, those described in: Measurement of Human and Murine Interleukin 2 and Interleukin 4, Bottomly, K., Davis, L.S. and Lipsky, P.E. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.3.1-6.3.12, John Wiley and Sons, Toronto. 1991; deVries et al., J. Exp. Med. 173:1205-1211, 1991; Moreau et al., Nature 336:690-692, 1988; Greenberger et al., Proc.

Natl. Acad. Sci. U.S.A. 80:2931-2938, 1983; Measurement of mouse and human interleukin 6 - Nordan, R. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.6.1-6.6.5, John Wiley and Sons, Toronto. 1991; Smith et al., Proc. Natl. Acad. Sci. U.S.A. 83:1857-1861, 1986; Measurement of human Interleukin 11 - Bennett, F., Giannotti, J., Clark, S.C. and Turner, K. J. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.15.1 John Wiley and Sons, Toronto. 1991; Measurement of mouse and human Interleukin 9 - Ciarletta, A., Giannotti, J., Clark, S.C. and Turner, K.J. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.13.1, John Wiley and Sons, Toronto. 1991.

Assays for T-cell clone responses to antigens (which will identify, among others, proteins that affect APC-T cell interactions as well as direct T-cell effects by measuring proliferation and cytokine production) include, without limitation, those described in: Current Protocols in Immunology, Ed by J. E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 3, In Vitro assays for Mouse Lymphocyte Function; Chapter 6, Cytokines and their cellular receptors; Chapter 7, Immunologic studies in Humans); Weinberger et al., Proc. Natl. Acad. Sci. USA 77:6091-6095, 1980; Weinberger et al., Eur. J. Immun. 11:405-411, 1981; Takai et al., J. Immunol. 137:3494-3500, 1986; Takai et al., J. Immunol. 140:508-512, 1988.

Immune Stimulating or Suppressing Activity

A protein of the present invention may also exhibit immune stimulating or immune suppressing activity, including without limitation the activities for which assays are described herein. A protein may be useful in the treatment of various immune deficiencies and disorders (including severe combined immunodeficiency (SCID)), e.g., in regulating (up or down) growth and proliferation of T and/or B lymphocytes, as well as effecting the cytolytic activity of NK cells and other cell populations. These immune deficiencies may be genetic or be caused by viral (e.g., HIV) as well as bacterial or fungal infections, or may result from autoimmune disorders. More specifically, infectious diseases causes by viral, bacterial, fungal or other infection may be treatable using a protein of the present invention, including infections by HIV, hepatitis viruses, herpesviruses, mycobacteria, Leishmania spp., malaria spp. and various fungal infections such as candidiasis. Of course, in this

regard, a protein of the present invention may also be useful where a boost to the immune system generally may be desirable, *i.e.*, in the treatment of cancer.

Autoimmune disorders which may be treated using a protein of the present invention include, for example, connective tissue disease, multiple sclerosis, systemic lupus erythematosus, rheumatoid arthritis, autoimmune pulmonary inflammation, Guillain-Barre syndrome, autoimmune thyroiditis, insulin dependent diabetes mellitis, myasthenia gravis, graft-versus-host disease and autoimmune inflammatory eye disease. Such a protein of the present invention may also to be useful in the treatment of allergic reactions and conditions, such as asthma (particularly allergic asthma) or other respiratory problems. Other conditions, in which immune suppression is desired (including, for example, organ transplantation), may also be treatable using a protein of the present invention.

Using the proteins of the invention it may also be possible to immune responses, in a number of ways. Down regulation may be in the form of inhibiting or blocking an immune response already in progress or may involve preventing the induction of an immune response. The functions of activated T cells may be inhibited by suppressing T cell responses or by inducing specific tolerance in T cells, or both. Immunosuppression of T cell responses is generally an active, non-antigen-specific, process which requires continuous exposure of the T cells to the suppressive agent. Tolerance, which involves inducing non-responsiveness or anergy in T cells, is distinguishable from immunosuppression in that it is generally antigen-specific and persists after exposure to the tolerizing agent has ceased. Operationally, tolerance can be demonstrated by the lack of a T cell response upon reexposure to specific antigen in the absence of the tolerizing agent.

Down regulating or preventing one or more antigen functions (including without limitation B lymphocyte antigen functions (such as , for example, B7)), *e.g.*, preventing high level lymphokine synthesis by activated T cells, will be useful in situations of tissue, skin and organ transplantation and in graft-versus-host disease (GVHD). For example, blockage of T cell function should result in reduced tissue destruction in tissue transplantation. Typically, in tissue transplants, rejection of the transplant is initiated through its recognition as foreign by T cells, followed by an immune reaction that destroys the transplant. The administration of a molecule which inhibits or blocks interaction of a B7 lymphocyte antigen with its natural ligand(s) on immune cells (such as a soluble, monomeric form of a peptide having

B7-2 activity alone or in conjunction with a monomeric form of a peptide having an activity of another B lymphocyte antigen (*e.g.*, B7-1, B7-3) or blocking antibody), prior to transplantation can lead to the binding of the molecule to the natural ligand(s) on the immune cells without transmitting the corresponding costimulatory signal. Blocking B lymphocyte antigen function in this matter prevents cytokine synthesis by immune cells, such as T cells, and thus acts as an immunosuppressant. Moreover, the lack of costimulation may also be sufficient to anergize the T cells, thereby inducing tolerance in a subject. Induction of long-term tolerance by B lymphocyte antigen-blocking reagents may avoid the necessity of repeated administration of these blocking reagents. To achieve sufficient immunosuppression or tolerance in a subject, it may also be necessary to block the function of a combination of B lymphocyte antigens.

The efficacy of particular blocking reagents in preventing organ transplant rejection or GVHD can be assessed using animal models that are predictive of efficacy in humans. Examples of appropriate systems which can be used include allogeneic cardiac grafts in rats and xenogeneic pancreatic islet cell grafts in mice, both of which have been used to examine the immunosuppressive effects of CTLA4Ig fusion proteins *in vivo* as described in Lenschow *et al.*, Science *257*:789-792 (1992) and Turka *et al.*, Proc. Natl. Acad. Sci USA, *89*:11102-11105 (1992). In addition, murine models of GVHD (see Paul ed., Fundamental Immunology, Raven Press, New York, 1989, pp. 846-847) can be used to determine the effect of blocking B lymphocyte antigen function *in vivo* on the development of that disease.

Blocking antigen function may also be therapeutically useful for treating autoimmune diseases. Many autoimmune disorders are the result of inappropriate activation of T cells that are reactive against self tissue and which promote the production of cytokines and autoantibodies involved in the pathology of the diseases. Preventing the activation of autoreactive T cells may reduce or eliminate disease symptoms. Administration of reagents which block costimulation of T cells by disrupting receptor:ligand interactions of B lymphocyte antigens can be used to inhibit T cell activation and prevent production of autoantibodies or T cell-derived cytokines which may be involved in the disease process. Additionally, blocking reagents may induce antigen-specific tolerance of autoreactive T cells which could lead to long-term relief from the disease. The efficacy of blocking reagents in preventing or alleviating autoimmune disorders can be determined using a number

of well-characterized animal models of human autoimmune diseases. Examples include murine experimental autoimmune encephalitis, systemic lupus erythmatosis in MRL/*lpr/lpr* mice or NZB hybrid mice, murine autoimmune collagen arthritis, diabetes mellitus in NOD mice and BB rats, and murine experimental myasthenia gravis (see Paul ed., Fundamental Immunology, Raven Press, New York, 1989, pp. 840-856).

Upregulation of an antigen function (preferably a B lymphocyte antigen function), as a means of up regulating immune responses, may also be useful in therapy. Upregulation of immune responses may be in the form of enhancing an existing immune response or eliciting an initial immune response. For example, enhancing an immune response through stimulating B lymphocyte antigen function may be useful in cases of viral infection. In addition, systemic viral diseases such as influenza, the common cold, and encephalitis might be alleviated by the administration of stimulatory forms of B lymphocyte antigens systemically.

Alternatively, anti-viral immune responses may be enhanced in an infected patient by removing T cells from the patient, costimulating the T cells *in vitro* with viral antigen-pulsed APCs either expressing a peptide of the present invention or together with a stimulatory form of a soluble peptide of the present invention and reintroducing the *in vitro* activated T cells into the patient. Another method of enhancing anti-viral immune responses would be to isolate infected cells from a patient, transfect them with a nucleic acid encoding a protein of the present invention as described herein such that the cells express all or a portion of the protein on their surface, and reintroduce the transfected cells into the patient. The infected cells would now be capable of delivering a costimulatory signal to, and thereby activate, T cells *in vivo*.

In another application, up regulation or enhancement of antigen function (preferably B lymphocyte antigen function) may be useful in the induction of tumor immunity. Tumor cells (*e.g.*, sarcoma, melanoma, lymphoma, leukemia, neuroblastoma, carcinoma) transfected with a nucleic acid encoding at least one peptide of the present invention can be administered to a subject to overcome tumor-specific tolerance in the subject. If desired, the tumor cell can be transfected to express a combination of peptides. For example, tumor cells obtained from a patient can be transfected *ex vivo* with an expression vector directing the expression of a peptide having B7-2-like activity alone, or in conjunction with a peptide having B7-1-

like activity and/or B7-3-like activity. The transfected tumor cells are returned to the patient to result in expression of the peptides on the surface of the transfected cell. Alternatively, gene therapy techniques can be used to target a tumor cell for transfection *in vivo*.

The presence of the peptide of the present invention having the activity of a B lymphocyte antigen(s) on the surface of the tumor cell provides the necessary costimulation signal to T cells to induce a T cell mediated immune response against the transfected tumor cells. In addition, tumor cells which lack MHC class I or MHC class II molecules, or which fail to reexpress sufficient amounts of MHC class I or MHC class II molecules, can be transfected with nucleic acid encoding all or a portion of (*e.g.*, a cytoplasmic-domain truncated portion) of an MHC class I α chain protein and β_2 microglobulin protein or an MHC class II α chain protein and an MHC class II β chain protein to thereby express MHC class I or MHC class II proteins on the cell surface. Expression of the appropriate class I or class II MHC in conjunction with a peptide having the activity of a B lymphocyte antigen (*e.g.*, B7-1, B7-2, B7-3) induces a T cell mediated immune response against the transfected tumor cell. Optionally, a gene encoding an antisense construct which blocks expression of an MHC class II associated protein, such as the invariant chain, can also be cotransfected with a DNA encoding a peptide having the activity of a B lymphocyte antigen to promote presentation of tumor associated antigens and induce tumor specific immunity. Thus, the induction of a T cell mediated immune response in a human subject may be sufficient to overcome tumor-specific tolerance in the subject.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Suitable assays for thymocyte or splenocyte cytotoxicity include, without limitation, those described in: Current Protocols in Immunology, Ed by J. E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 3, In Vitro assays for Mouse Lymphocyte Function 3.1-3.19; Chapter 7, Immunologic studies in Humans); Herrmann et al., Proc. Natl. Acad. Sci. USA 78:2488-2492, 1981; Herrmann et al., J. Immunol. 128:1968-1974, 1982; Handa et al., J. Immunol. 135:1564-1572, 1985; Takai et al., J. Immunol. 137:3494-3500, 1986; Takai et al., J. Immunol. 140:508-512, 1988; Herrmann et al., Proc. Natl. Acad. Sci. USA 78:2488-2492, 1981; Herrmann et al., J. Immunol. 128:1968-1974, 1982; Handa et al., J. Immunol. 135:1564-1572, 1985; Takai et al., J.

Immunol. 137:3494-3500, 1986; Bowmanet al., J. Virology 61:1992-1998; Takai et al., J. Immunol. 140:508-512, 1988; Bertagnolli et al., Cellular Immunology 133:327-341, 1991; Brown et al., J. Immunol. 153:3079-3092, 1994.

Assays for T-cell-dependent immunoglobulin responses and isotype switching (which will identify, among others, proteins that modulate T-cell dependent antibody responses and that affect Th1/Th2 profiles) include, without limitation, those described in: Maliszewski, J. Immunol. 144:3028-3033, 1990; and Assays for B cell function: *In vitro* antibody production, Mond, J.J. and Brunswick, M. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 3.8.1-3.8.16, John Wiley and Sons, Toronto. 1994.

Mixed lymphocyte reaction (MLR) assays (which will identify, among others, proteins that generate predominantly Th1 and CTL responses) include, without limitation, those described in: Current Protocols in Immunology, Ed by J. E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 3, In Vitro assays for Mouse Lymphocyte Function 3.1-3.19; Chapter 7, Immunologic studies in Humans); Takai et al., J. Immunol. 137:3494-3500, 1986; Takai et al., J. Immunol. 140:508-512, 1988; Bertagnolli et al., J. Immunol. 149:3778-3783, 1992.

Dendritic cell-dependent assays (which will identify, among others, proteins expressed by dendritic cells that activate naive T-cells) include, without limitation, those described in: Guery et al., J. Immunol. 134:536-544, 1995; Inaba et al., Journal of Experimental Medicine 173:549-559, 1991; Macatonia et al., Journal of Immunology 154:5071-5079, 1995; Porgador et al., Journal of Experimental Medicine 182:255-260, 1995; Nair et al., Journal of Virology 67:4062-4069, 1993; Huang et al., Science 264:961-965, 1994; Macatonia et al., Journal of Experimental Medicine 169:1255-1264, 1989; Bhardwaj et al., Journal of Clinical Investigation 94:797-807, 1994; and Inaba et al., Journal of Experimental Medicine 172:631-640, 1990.

Assays for lymphocyte survival/apoptosis (which will identify, among others, proteins that prevent apoptosis after superantigen induction and proteins that regulate lymphocyte homeostasis) include, without limitation, those described in: Darzynkiewicz et al., Cytometry 13:795-808, 1992; Gorczyca et al., Leukemia 7:659-670, 1993; Gorczyca et al., Cancer Research 53:1945-1951, 1993; Itoh et al., Cell 66:233-243, 1991; Zacharchuk, Journal of Immunology 145:4037-4045, 1990; Zamai et

al., Cytometry 14:891-897, 1993; Gorczyca et al., International Journal of Oncology 1:639-648, 1992.

Assays for proteins that influence early steps of T-cell commitment and development include, without limitation, those described in: Antica et al., Blood 84:111-117, 1994; Fine et al., Cellular Immunology 155:111-122, 1994; Galy et al., Blood 85:2770-2778, 1995; Toki et al., Proc. Nat. Acad Sci. USA 88:7548-7551, 1991.

Hematopoiesis Regulating Activity

A protein of the present invention may be useful in regulation of hematopoiesis and, consequently, in the treatment of myeloid or lymphoid cell deficiencies. Even marginal biological activity in support of colony forming cells or of factor-dependent cell lines indicates involvement in regulating hematopoiesis, e.g. in supporting the growth and proliferation of erythroid progenitor cells alone or in combination with other cytokines, thereby indicating utility, for example, in treating various anemias or for use in conjunction with irradiation/chemotherapy to stimulate the production of erythroid precursors and/or erythroid cells; in supporting the growth and proliferation of myeloid cells such as granulocytes and monocytes/macrophages (i.e., traditional CSF activity) useful, for example, in conjunction with chemotherapy to prevent or treat consequent myelo-suppression; in supporting the growth and proliferation of megakaryocytes and consequently of platelets thereby allowing prevention or treatment of various platelet disorders such as thrombocytopenia, and generally for use in place of or complimentary to platelet transfusions; and/or in supporting the growth and proliferation of hematopoietic stem cells which are capable of maturing to any and all of the above-mentioned hematopoietic cells and therefore find therapeutic utility in various stem cell disorders (such as those usually treated with transplantation, including, without limitation, aplastic anemia and paroxysmal nocturnal hemoglobinuria), as well as in repopulating the stem cell compartment post irradiation/chemotherapy, either *in-vivo* or *ex-vivo* (i.e., in conjunction with bone marrow transplantation or with peripheral progenitor cell transplantation (homologous or heterologous)) as normal cells or genetically manipulated for gene therapy.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Suitable assays for proliferation and differentiation of various hematopoietic lines are cited above.

Assays for embryonic stem cell differentiation (which will identify, among others, proteins that influence embryonic differentiation hematopoiesis) include, without limitation, those described in: Johansson et al. Cellular Biology 15:141-151, 1995; Keller et al., Molecular and Cellular Biology 13:473-486, 1993; McClanahan et al., Blood 81:2903-2915, 1993.

Assays for stem cell survival and differentiation (which will identify, among others, proteins that regulate lympho-hematopoiesis) include, without limitation, those described in: Methylcellulose colony forming assays, Freshney, M.G. In *Culture of Hematopoietic Cells.* R.I. Freshney, *et al.* eds. Vol pp. 265-268, Wiley-Liss, Inc., New York, NY. 1994; Hirayama et al., Proc. Natl. Acad. Sci. USA 89:5907-5911, 1992; Primitive hematopoietic colony forming cells with high proliferative potential, McNiece, I.K. and Briddell, R.A. In *Culture of Hematopoietic Cells.* R.I. Freshney, *et al.* eds. Vol pp. 23-39, Wiley-Liss, Inc., New York, NY. 1994; Neben et al., Experimental Hematology 22:353-359, 1994; Cobblestone area forming cell assay, Ploemacher, R.E. In *Culture of Hematopoietic Cells.* R.I. Freshney, *et al.* eds. Vol pp. 1-21, Wiley-Liss, Inc.., New York, NY. 1994; Long term bone marrow cultures in the presence of stromal cells, Spooncer, E., Dexter, M. and Allen, T. In *Culture of Hematopoietic Cells.* R.I. Freshney, *et al.* eds. Vol pp. 163-179, Wiley-Liss, Inc., New York, NY. 1994; Long term culture initiating cell assay, Sutherland, H.J. In *Culture of Hematopoietic Cells.* R.I. Freshney, *et al.* eds. Vol pp. 139-162, Wiley-Liss, Inc., New York, NY. 1994.

Tissue Growth Activity

A protein of the present invention also may have utility in compositions used for bone, cartilage, tendon, ligament and/or nerve tissue growth or regeneration, as well as for wound healing and tissue repair and replacement, and in the treatment of burns, incisions and ulcers.

A protein of the present invention, which induces cartilage and/or bone growth in circumstances where bone is not normally formed, has application in the healing of bone fractures and cartilage damage or defects in humans and other animals. Such a preparation employing a protein of the invention may have prophylactic use in closed as well as open fracture reduction and also in the improved fixation of artificial joints. *De novo* bone formation induced by an

osteogenic agent contributes to the repair of congenital, trauma induced, or oncologic resection induced craniofacial defects, and also is useful in cosmetic plastic surgery.

A protein of this invention may also be used in the treatment of periodontal disease, and in other tooth repair processes. Such agents may provide an environment to attract bone-forming cells, stimulate growth of bone-forming cells or induce differentiation of progenitors of bone-forming cells. A protein of the invention may also be useful in the treatment of osteoporosis or osteoarthritis, such as through stimulation of bone and/or cartilage repair or by blocking inflammation or processes of tissue destruction (collagenase activity, osteoclast activity, etc.) mediated by inflammatory processes.

Another category of tissue regeneration activity that may be attributable to the protein of the present invention is tendon/ligament formation. A protein of the present invention, which induces tendon/ligament-like tissue or other tissue formation in circumstances where such tissue is not normally formed, has application in the healing of tendon or ligament tears, deformities and other tendon or ligament defects in humans and other animals. Such a preparation employing a tendon/ligament-like tissue inducing protein may have prophylactic use in preventing damage to tendon or ligament tissue, as well as use in the improved fixation of tendon or ligament to bone or other tissues, and in repairing defects to tendon or ligament tissue. De novo tendon/ligament-like tissue formation induced by a composition of the present invention contributes to the repair of congenital, trauma induced, or other tendon or ligament defects of other origin, and is also useful in cosmetic plastic surgery for attachment or repair of tendons or ligaments. The compositions of the present invention may provide an environment to attract tendon- or ligament-forming cells, stimulate growth of tendon- or ligament-forming cells, induce differentiation of progenitors of tendon- or ligament-forming cells, or induce growth of tendon/ligament cells or progenitors *ex vivo* for return *in vivo* to effect tissue repair. The compositions of the invention may also be useful in the treatment of tendinitis, carpal tunnel syndrome and other tendon or ligament defects. The compositions may also include an appropriate matrix and/or sequestering agent as a carrier as is well known in the art.

The protein of the present invention may also be useful for proliferation of neural cells and for regeneration of nerve and brain tissue, *i.e.* for the treatment of central and peripheral nervous system diseases and neuropathies, as well as

mechanical and traumatic disorders, which involve degeneration, death or trauma to neural cells or nerve tissue. More specifically, a protein may be used in the treatment of diseases of the peripheral nervous system, such as peripheral nerve injuries, peripheral neuropathy and localized neuropathies, and central nervous system diseases, such as Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis, and Shy-Drager syndrome. Further conditions which may be treated in accordance with the present invention include mechanical and traumatic disorders, such as spinal cord disorders, head trauma and cerebrovascular diseases such as stroke. Peripheral neuropathies resulting from chemotherapy or other medical therapies may also be treatable using a protein of the invention.

Proteins of the invention may also be useful to promote better or faster closure of non-healing wounds, including without limitation pressure ulcers, ulcers associated with vascular insufficiency, surgical and traumatic wounds, and the like.

It is expected that a protein of the present invention may also exhibit activity for generation or regeneration of other tissues, such as organs (including, for example, pancreas, liver, intestine, kidney, skin, endothelium), muscle (smooth, skeletal or cardiac) and vascular (including vascular endothelium) tissue, or for promoting the growth of cells comprising such tissues. Part of the desired effects may be by inhibition or modulation of fibrotic scarring to allow normal tissue to regenerate. A protein of the invention may also exhibit angiogenic activity.

A protein of the present invention may also be useful for gut protection or regeneration and treatment of lung or liver fibrosis, reperfusion injury in various tissues, and conditions resulting from systemic cytokine damage.

A protein of the present invention may also be useful for promoting or inhibiting differentiation of tissues described above from precursor tissues or cells; or for inhibiting the growth of tissues described above.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assays for tissue generation activity include, without limitation, those described in: International Patent Publication No. WO95/16035 (bone, cartilage, tendon); International Patent Publication No. WO95/05846 (nerve, neuronal); International Patent Publication No. WO91/07491 (skin, endothelium).

Assays for wound healing activity include, without limitation, those described in: Winter, Epidermal Wound Healing, pps. 71-112 (Maibach, HI and Rovee, DT,

eds.), Year Book Medical Publishers, Inc., Chicago, as modified by Eaglstein and Mertz, J. Invest. Dermatol 71:382-84 (1978).

Activin/Inhibin Activity

A protein of the present invention may also exhibit activin- or inhibin-related activities. Inhibins are characterized by their ability to inhibit the release of follicle stimulating hormone (FSH), while activins and are characterized by their ability to stimulate the release of follicle stimulating hormone (FSH). Thus, a protein of the present invention, alone or in heterodimers with a member of the inhibin α family, may be useful as a contraceptive based on the ability of inhibins to decrease fertility in female mammals and decrease spermatogenesis in male mammals. Administration of sufficient amounts of other inhibins can induce infertility in these mammals. Alternatively, the protein of the invention, as a homodimer or as a heterodimer with other protein subunits of the inhibin-β group, may be useful as a fertility inducing therapeutic, based upon the ability of activin molecules in stimulating FSH release from cells of the anterior pituitary. See, for example, United States Patent 4,798,885. A protein of the invention may also be useful for advancement of the onset of fertility in sexually immature mammals, so as to increase the lifetime reproductive performance of domestic animals such as cows, sheep and pigs.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assays for activin/inhibin activity include, without limitation, those described in: Vale et al., Endocrinology 91:562-572, 1972; Ling et al., Nature 321:779-782, 1986; Vale et al., Nature 321:776-779, 1986; Mason et al., Nature 318:659-663, 1985; Forage et al., Proc. Natl. Acad. Sci. USA 83:3091-3095, 1986.

Chemotactic/Chemokinetic Activity

A protein of the present invention may have chemotactic or chemokinetic activity (e.g., act as a chemokine) for mammalian cells, including, for example, monocytes, fibroblasts, neutrophils, T-cells, mast cells, eosinophils, epithelial and/or endothelial cells. Chemotactic and chemokinetic proteins can be used to mobilize or attract a desired cell population to a desired site of action. Chemotactic or chemokinetic proteins provide particular advantages in treatment of wounds and

other trauma to tissues, as well as in treatment of localized infections. For example, attraction of lymphocytes, monocytes or neutrophils to tumors or sites of infection may result in improved immune responses against the tumor or infecting agent.

A protein or peptide has chemotactic activity for a particular cell population if it can stimulate, directly or indirectly, the directed orientation or movement of such cell population. Preferably, the protein or peptide has the ability to directly stimulate directed movement of cells. Whether a particular protein has chemotactic activity for a population of cells can be readily determined by employing such protein or peptide in any known assay for cell chemotaxis.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assays for chemotactic activity (which will identify proteins that induce or prevent chemotaxis) consist of assays that measure the ability of a protein to induce the migration of cells across a membrane as well as the ability of a protein to induce the adhesion of one cell population to another cell population. Suitable assays for movement and adhesion include, without limitation, those described in: Current Protocols in Immunology, Ed by J.E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W.Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 6.12, Measurement of alpha and beta Chemokines 6.12.1-6.12.28; Taub et al. J. Clin. Invest. 95:1370-1376, 1995; Lind et al. APMIS 103:140-146, 1995; Muller et al Eur. J. Immunol. 25: 1744-1748; Gruber et al. J. of Immunol. 152:5860-5867, 1994; Johnston et al. J. of Immunol. 153: 1762-1768, 1994.

Hemostatic and Thrombolytic Activity

A protein of the invention may also exhibit hemostatic or thrombolytic activity. As a result, such a protein is expected to be useful in treatment of various coagulation disorders (including hereditary disorders, such as hemophilias) or to enhance coagulation and other hemostatic events in treating wounds resulting from trauma, surgery or other causes. A protein of the invention may also be useful for dissolving or inhibiting formation of thromboses and for treatment and prevention of conditions resulting therefrom (such as, for example, infarction of cardiac and central nervous system vessels (e.g., stroke).

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assay for hemostatic and thrombolytic activity include, without limitation, those described in: Linet et al., J. Clin. Pharmacol. 26:131-140, 1986; Burdick et al., Thrombosis Res. 45:413-419, 1987; Humphrey et al., Fibrinolysis 5:71-79 (1991); Schaub, Prostaglandins 35:467-474, 1988.

Receptor/Ligand Activity

A protein of the present invention may also demonstrate activity as receptors, receptor ligands or inhibitors or agonists of receptor/ligand interactions. Examples of such receptors and ligands include, without limitation, cytokine receptors and their ligands, receptor kinases and their ligands, receptor phosphatases and their ligands, receptors involved in cell-cell interactions and their ligands (including without limitation, cellular adhesion molecules (such as selectins, integrins and their ligands) and receptor/ligand pairs involved in antigen presentation, antigen recognition and development of cellular and humoral immune responses). Receptors and ligands are also useful for screening of potential peptide or small molecule inhibitors of the relevant receptor/ligand interaction. A protein of the present invention (including, without limitation, fragments of receptors and ligands) may themselves be useful as inhibitors of receptor/ligand interactions.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Suitable assays for receptor-ligand activity include without limitation those described in:Current Protocols in Immunology, Ed by J.E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W.Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 7.28, Measurement of Cellular Adhesion under static conditions 7.28.1-7.28.22), Takai et al., Proc. Natl. Acad. Sci. USA 84:6864-6868, 1987; Bierer et al., J. Exp. Med. 168:1145-1156, 1988; Rosenstein et al., J. Exp. Med. 169:149-160 1989; Stoltenborg et al., J. Immunol. Methods 175:59-68, 1994; Stitt et al., Cell 80:661-670, 1995.

Anti-Inflammatory Activity

Proteins of the present invention may also exhibit anti-inflammatory activity. The anti-inflammatory activity may be achieved by providing a stimulus to cells involved in the inflammatory response, by inhibiting or promoting cell-cell interactions (such as, for example, cell adhesion), by inhibiting or promoting

chemotaxis of cells involved in the inflammatory process, inhibiting or promoting cell extravasation, or by stimulating or suppressing production of other factors which more directly inhibit or promote an inflammatory response. Proteins exhibiting such activities can be used to treat inflammatory conditions including chronic or acute conditions), including without limitation inflammation associated with infection (such as septic shock, sepsis or systemic inflammatory response syndrome (SIRS)), ischemia-reperfusion injury, endotoxin lethality, arthritis, complement-mediated hyperacute rejection, nephritis, cytokine or chemokine-induced lung injury, inflammatory bowel disease, Crohn's disease or resulting from over production of cytokines such as TNF or IL-1. Proteins of the invention may also be useful to treat anaphylaxis and hypersensitivity to an antigenic substance or material.

Tumor Inhibition Activity

In addition to the activities described above for immunological treatment or prevention of tumors, a protein of the invention may exhibit other anti-tumor activities. A protein may inhibit tumor growth directly or indirectly (such as, for example, via ADCC). A protein may exhibit its tumor inhibitory activity by acting on tumor tissue or tumor precursor tissue, by inhibiting formation of tissues necessary to support tumor growth (such as, for example, by inhibiting angiogenesis), by causing production of other factors, agents or cell types which inhibit tumor growth, or by suppressing, eliminating or inhibiting factors, agents or cell types which promote tumor growth.

Other Activities

A protein of the invention may also exhibit one or more of the following additional activities or effects: inhibiting the growth, infection or function of, or killing, infectious agents, including, without limitation, bacteria, viruses, fungi and other parasites; effecting (suppressing or enhancing) bodily characteristics, including, without limitation, height, weight, hair color, eye color, skin, fat to lean ratio or other tissue pigmentation, or organ or body part size or shape (such as, for example, breast augmentation or diminution, change in bone form or shape); effecting biorhythms or caricadic cycles or rhythms; effecting the fertility of male or female subjects; effecting the metabolism, catabolism, anabolism, processing, utilization, storage or elimination

of dietary fat, lipid, protein, carbohydrate, vitamins, minerals, cofactors or other nutritional factors or component(s); effecting behavioral characteristics, including, without limitation, appetite, libido, stress, cognition (including cognitive disorders), depression (including depressive disorders) and violent behaviors; providing analgesic effects or other pain reducing effects; promoting differentiation and growth of embryonic stem cells in lineages other than hematopoietic lineages; hormonal or endocrine activity; in the case of enzymes, correcting deficiencies of the enzyme and treating deficiency-related diseases; treatment of hyperproliferative disorders (such as, for example, psoriasis); immunoglobulin-like activity (such as, for example, the ability to bind antigens or complement); and the ability to act as an antigen in a vaccine composition to raise an immune response against such protein or another material or entity which is cross-reactive with such protein.

ADMINISTRATION AND DOSING

A protein of the present invention (from whatever source derived, including without limitation from recombinant and non-recombinant sources) may be used in a pharmaceutical composition when combined with a pharmaceutically acceptable carrier. Such a composition may also contain (in addition to protein and a carrier) diluents, fillers, salts, buffers, stabilizers, solubilizers, and other materials well known in the art. The term "pharmaceutically acceptable" means a non-toxic material that does not interfere with the effectiveness of the biological activity of the active ingredient(s). The characteristics of the carrier will depend on the route of administration. The pharmaceutical composition of the invention may also contain cytokines, lymphokines, or other hematopoietic factors such as M-CSF, GM-CSF, TNF, IL-1, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-12, IL-13, IL-14, IL-15, IFN, TNF0, TNF1, TNF2, G-CSF, Meg-CSF, thrombopoietin, stem cell factor, and erythropoietin. The pharmaceutical composition may further contain other agents which either enhance the activity of the protein or compliment its activity or use in treatment. Such additional factors and/or agents may be included in the pharmaceutical composition to produce a synergistic effect with protein of the invention, or to minimize side effects. Conversely, protein of the present invention may be included in formulations of the particular cytokine, lymphokine, other hematopoietic factor, thrombolytic or anti-thrombotic factor, or anti-inflammatory agent to minimize side effects of the cytokine, lymphokine, other hematopoietic factor, thrombolytic or anti-thrombotic factor, or anti-inflammatory agent.

A protein of the present invention may be active in multimers (e.g., heterodimers or homodimers) or complexes with itself or other proteins. As a result, pharmaceutical compositions of the invention may comprise a protein of the invention in such multimeric or complexed form.

The pharmaceutical composition of the invention may be in the form of a complex of the protein(s) of present invention along with protein or peptide antigens. The protein and/or peptide antigen will deliver a stimulatory signal to both B and T lymphocytes. B lymphocytes will respond to antigen through their surface immunoglobulin receptor. T lymphocytes will respond to antigen through the T cell receptor (TCR) following presentation of the antigen by MHC proteins. MHC and structurally related proteins including those encoded by class I and class II MHC genes on host cells will serve to present the peptide antigen(s) to T lymphocytes. The

antigen components could also be supplied as purified MHC-peptide complexes alone or with co-stimulatory molecules that can directly signal T cells. Alternatively antibodies able to bind surface immunolgobulin and other molecules on B cells as well as antibodies able to bind the TCR and other molecules on T cells can be combined with the pharmaceutical composition of the invention.

The pharmaceutical composition of the invention may be in the form of a liposome in which protein of the present invention is combined, in addition to other pharmaceutically acceptable carriers, with amphipathic agents such as lipids which exist in aggregated form as micelles, insoluble monolayers, liquid crystals, or lamellar layers in aqueous solution. Suitable lipids for liposomal formulation include, without limitation, monoglycerides, diglycerides, sulfatides, lysolecithin, phospholipids, saponin, bile acids, and the like. Preparation of such liposomal formulations is within the level of skill in the art, as disclosed, for example, in U.S. Patent No. 4,235,871; U.S. Patent No. 4,501,728; U.S. Patent No. 4,837,028; and U.S. Patent No. 4,737,323, all of which are incorporated herein by reference.

As used herein, the term "therapeutically effective amount" means the total amount of each active component of the pharmaceutical composition or method that is sufficient to show a meaningful patient benefit, i.e., treatment, healing, prevention or amelioration of the relevant medical condition, or an increase in rate of treatment, healing, prevention or amelioration of such conditions. When applied to an individual active ingredient, administered alone, the term refers to that ingredient alone. When applied to a combination, the term refers to combined amounts of the active ingredients that result in the therapeutic effect, whether administered in combination, serially or simultaneously.

In practicing the method of treatment or use of the present invention, a therapeutically effective amount of protein of the present invention is administered to a mammal having a condition to be treated. Protein of the present invention may be administered in accordance with the method of the invention either alone or in combination with other therapies such as treatments employing cytokines, lymphokines or other hematopoietic factors. When co-administered with one or more cytokines, lymphokines or other hematopoietic factors, protein of the present invention may be administered either simultaneously with the cytokine(s), lymphokine(s), other hematopoietic factor(s), thrombolytic or anti-thrombotic factors, or sequentially. If administered sequentially, the attending physician will decide on

the appropriate sequence of administering protein of the present invention in combination with cytokine(s), lymphokine(s), other hematopoietic factor(s), thrombolytic or anti-thrombotic factors.

Administration of protein of the present invention used in the pharmaceutical composition or to practice the method of the present invention can be carried out in a variety of conventional ways, such as oral ingestion, inhalation, topical application or cutaneous, subcutaneous, intraperitoneal, parenteral or intravenous injection. Intravenous administration to the patient is preferred.

When a therapeutically effective amount of protein of the present invention is administered orally, protein of the present invention will be in the form of a tablet, capsule, powder, solution or elixir. When administered in tablet form, the pharmaceutical composition of the invention may additionally contain a solid carrier such as a gelatin or an adjuvant. The tablet, capsule, and powder contain from about 5 to 95% protein of the present invention, and preferably from about 25 to 90% protein of the present invention. When administered in liquid form, a liquid carrier such as water, petroleum, oils of animal or plant origin such as peanut oil, mineral oil, soybean oil, or sesame oil, or synthetic oils may be added. The liquid form of the pharmaceutical composition may further contain physiological saline solution, dextrose or other saccharide solution, or glycols such as ethylene glycol, propylene glycol or polyethylene glycol. When administered in liquid form, the pharmaceutical composition contains from about 0.5 to 90% by weight of protein of the present invention, and preferably from about 1 to 50% protein of the present invention.

When a therapeutically effective amount of protein of the present invention is administered by intravenous, cutaneous or subcutaneous injection, protein of the present invention will be in the form of a pyrogen-free, parenterally acceptable aqueous solution. The preparation of such parenterally acceptable protein solutions, having due regard to pH, isotonicity, stability, and the like, is within the skill in the art. A preferred pharmaceutical composition for intravenous, cutaneous, or subcutaneous injection should contain, in addition to protein of the present invention, an isotonic vehicle such as Sodium Chloride Injection, Ringer's Injection, Dextrose Injection, Dextrose and Sodium Chloride Injection, Lactated Ringer's Injection, or other vehicle as known in the art. The pharmaceutical composition of the present invention may also contain stabilizers, preservatives, buffers, antioxidants, or other additives known to those of skill in the art.

The amount of protein of the present invention in the pharmaceutical composition of the present invention will depend upon the nature and severity of the condition being treated, and on the nature of prior treatments which the patient has undergone. Ultimately, the attending physician will decide the amount of protein of the present invention with which to treat each individual patient. Initially, the attending physician will administer low doses of protein of the present invention and observe the patient's response. Larger doses of protein of the present invention may be administered until the optimal therapeutic effect is obtained for the patient, and at that point the dosage is not increased further. It is contemplated that the various pharmaceutical compositions used to practice the method of the present invention should contain about 0.01 μg to about 100 mg (preferably about 0.1ng to about 10 mg, more preferably about 0.1 μg to about 1 mg) of protein of the present invention per kg body weight.

The duration of intravenous therapy using the pharmaceutical composition of the present invention will vary, depending on the severity of the disease being treated and the condition and potential idiosyncratic response of each individual patient. It is contemplated that the duration of each application of the protein of the present invention will be in the range of 12 to 24 hours of continuous intravenous administration. Ultimately the attending physician will decide on the appropriate duration of intravenous therapy using the pharmaceutical composition of the present invention.

Protein of the invention may also be used to immunize animals to obtain polyclonal and monoclonal antibodies which specifically react with the protein. Such antibodies may be obtained using either the entire protein or fragments thereof as an immunogen. The peptide immunogens additionally may contain a cysteine residue at the carboxyl terminus, and are conjugated to a hapten such as keyhole limpet hemocyanin (KLH). Methods for synthesizing such peptides are known in the art, for example, as in R.P. Merrifield, J. Amer.Chem.Soc. 85, 2149-2154 (1963); J.L. Krstenansky, *et al.*, FEBS Lett. 211, 10 (1987). Monoclonal antibodies binding to the protein of the invention may be useful diagnostic agents for the immunodetection of the protein. Neutralizing monoclonal antibodies binding to the protein may also be useful therapeutics for both conditions associated with the protein and also in the treatment of some forms of cancer where abnormal expression of the protein is involved. In the case of cancerous cells or leukemic cells, neutralizing monoclonal

antibodies against the protein may be useful in detecting and preventing the metastatic spread of the cancerous cells, which may be mediated by the protein.

For compositions of the present invention which are useful for bone, cartilage, tendon or ligament regeneration, the therapeutic method includes administering the composition topically, systematically, or locally as an implant or device. When administered, the therapeutic composition for use in this invention is, of course, in a pyrogen-free, physiologically acceptable form. Further, the composition may desirably be encapsulated or injected in a viscous form for delivery to the site of bone, cartilage or tissue damage. Topical administration may be suitable for wound healing and tissue repair. Therapeutically useful agents other than a protein of the invention which may also optionally be included in the composition as described above, may alternatively or additionally, be administered simultaneously or sequentially with the composition in the methods of the invention. Preferably for bone and/or cartilage formation, the composition would include a matrix capable of delivering the protein-containing composition to the site of bone and/or cartilage damage, providing a structure for the developing bone and cartilage and optimally capable of being resorbed into the body. Such matrices may be formed of materials presently in use for other implanted medical applications.

The choice of matrix material is based on biocompatibility, biodegradability, mechanical properties, cosmetic appearance and interface properties. The particular application of the compositions will define the appropriate formulation. Potential matrices for the compositions may be biodegradable and chemically defined calcium sulfate, tricalciumphosphate, hydroxyapatite, polylactic acid, polyglycolic acid and polyanhydrides. Other potential materials are biodegradable and biologically well-defined, such as bone or dermal collagen. Further matrices are comprised of pure proteins or extracellular matrix components. Other potential matrices are nonbiodegradable and chemically defined, such as sintered hydroxapatite, bioglass, aluminates, or other ceramics. Matrices may be comprised of combinations of any of the above mentioned types of material, such as polylactic acid and hydroxyapatite or collagen and tricalciumphosphate. The bioceramics may be altered in composition, such as in calcium-aluminate-phosphate and processing to alter pore size, particle size, particle shape, and biodegradability.

Presently preferred is a 50:50 (mole weight) copolymer of lactic acid and glycolic acid in the form of porous particles having diameters ranging from 150 to 800

microns. In some applications, it will be useful to utilize a sequestering agent, such as carboxymethyl cellulose or autologous blood clot, to prevent the protein compositions from disassociating from the matrix.

A preferred family of sequestering agents is cellulosic materials such as alkylcelluloses (including hydroxyalkylcelluloses), including methylcellulose, ethylcellulose, hydroxyethylcellulose, hydroxypropylcellulose, hydroxypropyl-methylcellulose, and carboxymethylcellulose, the most preferred being cationic salts of carboxymethylcellulose (CMC). Other preferred sequestering agents include hyaluronic acid, sodium alginate, poly(ethylene glycol), polyoxyethylene oxide, carboxyvinyl polymer and poly(vinyl alcohol). The amount of sequestering agent useful herein is 0.5-20 wt%, preferably 1-10 wt% based on total formulation weight, which represents the amount necessary to prevent desorbtion of the protein from the polymer matrix and to provide appropriate handling of the composition, yet not so much that the progenitor cells are prevented from infiltrating the matrix, thereby providing the protein the opportunity to assist the osteogenic activity of the progenitor cells.

In further compositions, proteins of the invention may be combined with other agents beneficial to the treatment of the bone and/or cartilage defect, wound, or tissue in question. These agents include various growth factors such as epidermal growth factor (EGF), platelet derived growth factor (PDGF), transforming growth factors (TGF-α and TGF-β), and insulin-like growth factor (IGF).

The therapeutic compositions are also presently valuable for veterinary applications. Particularly domestic animals and thoroughbred horses, in addition to humans, are desired patients for such treatment with proteins of the present invention.

The dosage regimen of a protein-containing pharmaceutical composition to be used in tissue regeneration will be determined by the attending physician considering various factors which modify the action of the proteins, e.g., amount of tissue weight desired to be formed, the site of damage, the condition of the damaged tissue, the size of a wound, type of damaged tissue (e.g., bone), the patient's age, sex, and diet, the severity of any infection, time of administration and other clinical factors. The dosage may vary with the type of matrix used in the reconstitution and with inclusion of other proteins in the pharmaceutical composition. For example, the addition of other known growth factors, such as IGF I (insulin like growth factor I),

to the final composition, may also effect the dosage. Progress can be monitored by periodic assessment of tissue/bone growth and/or repair, for example, X-rays, histomorphometric determinations and tetracycline labeling.

Polynucleotides of the present invention can also be used for gene therapy. Such polynucleotides can be introduced either *in vivo* or *ex vivo* into cells for expression in a mammalian subject. Polynucleotides of the invention may also be administered by other known methods for introduction of nucleic acid into a cell or organism (including, without limitation, in the form of viral vectors or naked DNA).

Cells may also be cultured *ex vivo* in the presence of proteins of the present invention in order to proliferate or to produce a desired effect on or activity in such cells. Treated cells can then be introduced *in vivo* for therapeutic purposes.

Patent and literature references cited herein are incorporated by reference as if fully set forth.

TABLE 3

Sel.	Species	Stage	Tissue	Cell Type	Treatment
PP	Human	Adult	Blood	LymphoblasticLeukemiaMOLT-4	None
PQ	Human	Adult	Tumor	ColorectalAdenocarcinomaSW480	None
PR	Human	Fetal	Kidney	N/A	None
PS	Human	Fetal	Kidney	N/A	None
PT	Human	Adult	Blood	LymphoblasticLeukemiaMOLT-4	None
PU	Human	Adult	Blood	Promyelocytic Leukemia HL-60	None
PV	Human	Adult	Brain	Cerebellum	None
PW	Human	Adult	Brain	Cerebellum	None
PX	Human	Adult	Brain	Cerebellum	None
PY	Human	Adult	Brain	Cerebellum	None
PZ	Human	Adult	Bone Marrow	N/A	None
Q	Mouse	Adult	Bone Marrow	N/A	5 fluoro-uracil
QA	Human	Adult	Cartilage	Chondrosarcoma HTB-94 line	None
QB	Human	Adult	Bladder	Carcinoma 5637	None
QC	Human	Adult	Neural	Neuroepithelioma HTB-10 line	None
QD	Human	Fetal	Embryo	FHs173 We HTB-158	None
QE	Human	Fetal	Liver	N/A	None
QF	Human	Adult	Bladder	Carcinoma 5637	None
QG	Human	Adult	Neural	Neuroepithelioma HTB-10 line	None
QH	Human	Fetal	Embryo	FHs173 We HTB-158	None
QL	Human	Fetal	Heart	18 weeks gestation	None
QM	Human	Adult	Blood	Histiocytic lymphoma U937	None
QN	Human	Adult	Cartilage	Chondrosarcoma HTB-94 line	None
QO	Human	Adult	Brain	Corpus Callosum	None
QR	Human	Adult	Brain	Subthalamic Nucleus	None
QS	Human	Fetal	Whole Embryo	N/A	None
QT	Human	Fetal	Kidney	N/A	None
QU	Human	Adult	Blood	ChronicMyelogenousLeukemiaK562	None
QV	Human	Adult	Testis	Embryonal Carcinoma NT2D1	RA for 23 days
QX	Human	Adult	Bone	Ewing's Sarcoma RD-ES	None
QY	Human	Adult	Blood	Promyelocytic Leukemia HL-60	None
QZ	Human	Adult	Brain	Caudate Nucleus	None
RA	Human	Adult	Brain	Substantia Nigra	None
RB	Human	Adult	Kidney	293 embryonal carcinoma line	None

RC	Human	Adult	Kidney	293 embryonal carcinoma line	None
RD	Human	Adult	Kidney	293 embryonal carcinoma line	None
RE	Human	Adult	Brain	Amygdala	None
RF	Human	Adult	Bone Marrow	N/A	None
RG	Human	Adult	Blood	Promyelocytic Leukemia HL-60	None
RH	Human	Adult	Blood	Promyelocytic Leukemia HL-60	None
RI	Human	Adult	Brain	Subthalamic Nucleus	None
RJ	Human	Adult	Neural	Neuroepithelioma HTB-10 line	None
RK	Human	Adult	Tumor	ColorectalAdenocarcinomaSW480	None
RL	Human	Fetal	Kidney	293 cell line	None
RM	Human	N/A	Brain	Neuroectodermal Tumor CRL-2060	None
RN	Human	Adult	Blood	LymphoblasticLeukemiaMOLT-4	None
RP	Human	Adult	Brain	Thalamus	None
RQ	Human	Fetal	Kidney	N/A	None
RR	Human	Fetal	Kidney	N/A	None
RS	Human	Adult	Tumor	ColorectalAdenocarcinomaSW480	None
RT	Human	N/A	Brain	Neuroectodermal Tumor CRL-2060	None
RU	Human	Adult	Adrenal corte	Carcinoma SW-13	None
RV	Human	Adult	Brain	Cerebellum	None
RW	Human	N/A	Brain	Neuroectodermal Tumor CRL-2060	None
RX	Human	N/A	Nasal Epithel	squamous cell carcinoma CCL-30	None
RY	Human	Adult	Ovary	Ovarian Adenocarcinoma HTB-161	None
RZ	Human	Adult	Brain	Cerebellum	None
S	Human	Adult	Neural	Glioblastoma line TG-1	N/A
SA	Human	Fetal	Heart	18 weeks gestation	None
SB	Human	Fetal	Whole Embryo	N/A	None
SC	Human	Fetal	Kidney	293 cell line	None
SD	Human	Fetal	Kidney	N/A	None
SE	Human	Fetal	Kidney	N/A	None
SF	Human	Adult	Bladder	Carcinoma 5637	None
SG	Human	Fetal	Heart	18 weeks gestation	None
T	Mouse	Fetal	Brain	N/A	None
V	Mouse	Fetal	Brain	N/A	None
WA	Xenopus	Fetal	Embryo	Dorsal Mesoderm	None
WC	Xenopus	11-12	Embryo	Fetal Vent. Mesoderm/Ectoderm	N/A
WF	Xenopus	Fetal	Embryo	Dorsal Mesoderm	None
WG	Xenopus	Fetal	Embryo	Dorsal Mesoderm	None

WH	Xenopus	Fetal	Embryo	Dorsal Mesoderm	None
WI	Xenopus	Fetal	Embryo	Dorsal Mesoderm	None
WJ	Xenopus	11-12	Embryo	Fetal Vent. Mesoderm/Ectoderm	N/A
WK	Xenopus	11-12	Embryo	Fetal Vent. Mesoderm/Ectoderm	N/A
WL	Xenopus	Fetal	Embryo	Dorsal Mesoderm	None
Z	Rat	Fetal	Pancreas	N/A	None

Table 3 Cell Type and Treatment Key:

RA: retinoic acid

What is claimed is:

1. An isolated polynucleotide comprising a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID

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or a complement of said sequence.

2. An isolated polynucleotide consisting of a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157,

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or a complement of said sequence.

3. An isolated polynucleotide consisting essentially of a nucleotide sequence selected from the group consisting of:

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or a complement of said sequence.

4. An isolated polynucleotide comprising a nucleotide sequence which hybridizes to a sequence selected from the group consisting of:

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or to a complement of said sequence.

5. An isolated protein encoded by an isolated polynucleotide of claim 1.

6. An isolated protein encoded by an isolated polynucleotide of claim 2.

7. An isolated protein encoded by an isolated polynucleotide of claim 3.

8. An isolated protein encoded by an isolated polynucleotide of claim 4.

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ccgctgctgc tcctgctggg cttgctgctc gcaggctccg tcgcccctgc gcgcctcgtc 120
ccgaagcgcc tttcccaact tggtggcttc tcctgggata actgtgatga aggaaaggac 180
cctgcagtga tcaaaagcct cacgatccaa cctgacccca ttgtggttcc tggagatgta 240
gtcgtcagcc ttgagggcaa gaccagcgtt ctcctcgag 279

<210> 13
<211> 222
<212> DNA
<213> Homo sapiens

<400> 13
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagaccatt ccaggagcct 60
cggtgaagag aggatatcca tctgtgtagc cgcttctcta tacgggattc cagctccatg 120
gcagcccgtc tgctcctcct gggcatcctt ctcctgctgc tgcccctgcc cgtccctgcc 180
ccgtgccaca cagccgcacg ctcagagcgc aagcaactcg ag 222

<210> 14
<211> 473
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (11)

<400> 14
gaattcgcgg ncgcgtcgac atcgttttct ttatgtggga gaaggaagga gtaacataaa 60
acatgttttt atcactcaaa gtaagcaatg gaggtaacaa atattgtgca ttttaacagt 120
aatatttgaa gatttgtaga atattcacct ttaaaactag ttagtatgca tttataattt 180
taccagaata tacaactaac aattcaacag tgatgttctt tgcatttgtg gggagatgtg 240
tgatgttctt ggttttctgg tttggaatgg aacgtttata gccttgcctg taaaaatgtg 300
ccccagcact taatgagtga ccgtttgaat ccatatgtag tcccattggt gctaatgaga 360
gtagctgctg tgaaacagga ataaaatgtg tctgttcacg gaggtgcggt gtggatgcac 420
ctacaaggcc aactctctga tcagggtgag ggagagatgg aagaatgctc gag 473

<210> 15
<211> 228
<212> DNA
<213> Homo sapiens

<400> 15
gaattcgcgg ccgcgtcgac gccgggtatc aataaaggat ctttttaaga cagtttaaat 60
taggttttct gttacttaga acaaaatatc taaatgacac agaatctgaa gtggtcatta 120
ctatttgatt tccactctta tatgcttctg tcattgcttc cttgcatggt ggtgcgtgcg 180
tgcctgttgt cccagatatt caaggctgag gcaggaggat cactcgag 228

<210> 16
<211> 535
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (21)

<400> 16
gaattcgcgg ccgcgtcgaa ncatgctctt cagaaaagta tacaaatggc tggcaggccc 60
aattccacct tcgctgggaa tccagtcctc acaagcccag gttcctaatc tgggcctatt 120
tccagctcca aatacagcgg tgatgcccaa gtctgttttt ccagccctaa cttgttccca 180
agcttcagac cagtcactgg gtgtatccag tcacctccca acatctcccc aggggccgag 240
aagggctgtg gccttcagcc catccctgta tactctttcc ttaccccttc cacattttct 300
cctgtctccc ccatctagag gagtcacagg agcacccacc cggaaaccca ctccatgtcc 360
cactcctctc agtcaagtcc ccaagcgcca tcagcgctgc ctcctagcat ctcactccca 420
ctctctcctt ttcctcttca gtcccagcag ctcggctcag ggggctcctg ctcaccttgg 480
gcttggatgc tacagaagcc tccctccaga accatctccc tccacgaggc tcgag 535

<210> 17
<211> 226
<212> DNA
<213> Homo sapiens

<400> 17
gaattcgcgg ccgcgtcgac ggggatactt tcaggcactg tcaatggcag tgctagggaa 60
tataaatgca tgtgtgttat acatctacac atatatctac atccatagga ttttattagg 120
agggtttttg tttttgtttg aggcaggttc tcactctgtt gcccaggctg aagtgcagtg 180
gtgcaatcac agctcactac tgcagcatca acctcctggg ctcgag 226

<210> 18
<211> 437
<212> DNA
<213> Homo sapiens

<400> 18
gaattcggcc aaagaggcct acacacacac acacacacac acacacacac acacacacac 60
acagaaacaa atggaggaga aagagatagt gtggtagcaa taaatagtgc ctggctttga 120

agtgaaagac ttgggtttga atattgactc tgcctcttct tagttccccc atctgctttc 180
tctatacctt ggttgcacat gaggagcaaa tcaaatgaaa aatgcttata aatgtgaacc 240
tgtgagggtt agtgtggtat acagtcatgt ccccagtttt ccatggggca tatattctaa 300
tactcccagc ggttgtctga aaccaccaaa atagtactcc actctaaata tactatgttt 360
ttttctatac atacatacct gtgataaagt ttaatttata aattaggcac agtaagagat 420
taacgacctg cctcgag 437

<210> 19
<211> 378
<212> DNA
<213> Homo sapiens

<400> 19
gaattcggcc aaagaggcct acaccattca tctttcttgg agacgttaaa actatccact 60
ggattcaata caactctgct ttccactaaa aattctttaa aatgtccctc aacctttttc 120
gtactgtaac catatgggag gtgatacagt gcctttcctt tgtgattaag gtcacggtag 180
tcacttggaa ggatccttta agcttccaga aatgacttaa tctctaagat attgcaaatt 240
gttcttcact cagtgagttg gttttgtttc caagtccgac ttctgagtac agcaagtgag 300
gtggcttcgg gcagtcagct cctgaccccc cctaaaaaga aagggcaggg cctgcagtgg 360
acagcagcca gactcgag 378

<210> 20
<211> 338
<212> DNA
<213> Homo sapiens

<400> 20
gaattcggcc aaagaggcct acacgcctct ccgggacaaa taccctttgt ctgaaaacca 60
caataataac accttcctca aacacttgga aaatcctccc acatcgcaga gaattgagcc 120
cagatatgac attgtgcatg cagtgggaga gcgtgtgcac agcgaggcca tctcaccggc 180
accggaggag aaagcggtca cgctccgcag cctcaggtct tggctctcac tgaaggacag 240
gcagctgtcc caggaggtca cccctgctga cctggagtgt ggtttggaag gtcaggcggg 300
gtccgtccaa agggccagtt tgatttggga agctcgag 338

<210> 21
<211> 559
<212> DNA
<213> Homo sapiens

<400> 21
gaattcggcc aaagaggcct agctaaatat tatgactggc tatagttaaa ataataataa 60
tacttttgtt tgtttgttta tagtaaaata ataataatac ttttgttttt ttgagacaga 120
gtctcactct gtctcccagg ctagagtgcg gcggtgagat ctcggcttgc tgcaacctcc 180
gcctcccggg tttatgcgat tctcctgcct cagcctcccg agtacctggg attacaggtg 240
cccgccacca cgcctggcta atttttttgt atttttaata gagatggggt ttcaccatgt 300
tggccaggct tgttttgaac tcctgatctc aagtgatctg ccggcctcgg cctcccaaag 360
ataataatac ttttaaaatg aaaggtagga aggaggcatt tgaaacaatg gtgagatgtt 420
aagcttgaga attatggaga ataactatcc tggtagaaaa aaacagaaat aaaatatggt 480
gatagttttg tttcaggttt tttacttgtt ttctcttttg tctttggaag gtctgtttgt 540
ttcaagtgag catctcgag 559

<210> 22
<211> 283
<212> DNA
<213> Homo sapiens

<400> 22
gaattcggcc aaagaggcct agttagaatg taaggtatat cattctaaag atagagtaaa 60
aagaaaacaa aaccaaaagt tattaaaatt gttgtccggt ttactttaac ttagttttgc 120
atagttctag tgcagctgaa attgaaaagt tatttccctt tagctgtgtt attatagagc 180

agaaattctg tttttaaaaa ttagcctaag atatacttgt ttttgtaaag aaaaatattt 240
aatgttgaac aaaataaatt ggagttggag tagaatactc gag 283

<210> 23
<211> 314
<212> DNA
<213> Homo sapiens

<400> 23
gaattcggcc aaagaggcct aatctacagt tgctgatgga cagagtggat gaaatgagcc 60
aagatatagt taaatacaac acatacatga ggaatactag taaacaacag cagcagaaac 120
atcagtatca gcagcgtcgc cagcaggaga atatgcagcg ccagagccga ggagaacccc 180
cgctccctga ggaggacctg tccaaactct tcaaaccacc acagccgcct gccaggatgg 240
actcgctgct cattgcaggc cagataaaca cttactgcca gaacatcaag gagttcactg 300
cccaaaaact cgag 314

<210> 24
<211> 284
<212> DNA
<213> Homo sapiens

<400> 24
gaattcggcc aaagaggcct agcgacaagc aagtgcaaga aagttcattt gtaatttgtt 60
cagttgtctg tcttttgcac atctgcattc tgaccagaag gaactttgag gtttttctgc 120
agcacatgag catctgcggg ctctatcctc ttatagtagt tcttctttgt ctcaataatc 180
tcaaagccaa acttcctgta gaagtcaatt gccgactcat tgctgatctg gacatgcaga 240
taaatgttgt caaaagtacc atctttttca cagatgttct cgag 284

<210> 25
<211> 161
<212> DNA
<213> Homo sapiens

<400> 25
gaattcggcc aaagaggcct agtaggtgaa aatttataat atcaactgca cttaaaatat 60
ttgccagcca gcctcattca tcacatattt cctaaataag aataatcagg cagttttgac 120
agaaaaataa aatgtgtccc aaaagaagtc cgtacctcga g 161

<210> 26
<211> 672
<212> DNA
<213> Homo sapiens

<400> 26
gaattcggcc aaagaggcct agctaatttc ccttgacctc cagctggttt ccaagctgtt 60
ttaggagagg aagacagagt ttccaagtta ggagaggaag acagagttcc aagtgaatgc 120
catccacata ccaccttccc agaccccata gctcacaggc cccataggt catcagctct 180
tactttctcc ctctggaaag gaatggaaga agaggtgaaa tgttacttca tttggaagcc 240
tcctaccatc tctatctgaa cctggctccc tctccctagg cagcaaaacc aaattcccaa 300
acctacctac gtcagcgatg gcctgcttga tatttcagag aagagggacc cctgaggact 360
tcacctcaga ttcttggaag aatgtgattc agtccacagt agcctttcag agactgtata 420
ctcaagccag accaaagtat ccctcttccc attcagagcc agtgaggacc tgtctctgtc 480
cctgctcctc ctgtgccctc tgtgtgcggt gtcctttccc atctcctgct ggcttacatg 540
gcttcaagct ccacctcaaa gcgtcctgca ccaggcattg ccagcgatct cccettcaca 600
atggtctagc tcctatggtc tgtgtctcct tatttcttct gaccttcttt ctttcacccc 660
tgtgcactcg ag 672

<210> 27
<211> 144
<212> DNA

<213> Homo sapiens

<400> 27
gaattcgcgg ccgcgtcgac aagagccact ggcctgtaat tgtttgatat atttgttaaa 60
actctttgta taatgtcagg ttcaaggaca cactgttcca caatttcccg taagttgggg 120
ttttccattg cagctacccct cgag 144

<210> 28
<211> 250
<212> DNA
<213> Homo sapiens

<400> 28
gaattcgcgg ccgcgtcgac cctaaaccat ctacttccca gtcttctttc tagatttatt 60
cctttctttc cttcctctcc agttaggttg gagctttttc aattcttaga atataccaag 120
tttactccct accttaaggc cttcacattt gttgtctcaa cctgaatgct cttacattag 180
atacagtatg gtttgctcct ttatttcttt catatttctc ttcatatacc ttgtccccag 240
aaagctcgag 250

<210> 29
<211> 277
<212> DNA
<213> Homo sapiens

<400> 29
gaattcgcgg ccgcgtcgac cctcaggaac tatacaacag aaacaacaaa cacaagtgaa 60
aaaccctctg aacttagcag acctagatat gttttcctca gttaattgca gcagcgagaa 120
accattgtct ttttcagctg tgtttagcac atcaaaatca gtttctacac cacagtcaac 180
aggttctgct gctactatga cagcattggc agcaacaaaa acttctagtt tggctgatga 240
ttttggagaa ttcagccttt ttggggaatc actcgag 277

<210> 30
<211> 258
<212> DNA
<213> Homo sapiens

<400> 30
gaattcgcgg ccgcgtcgac tgtgaatgtt aatattcctg aaaagactac agcactgaat 60
aatatggatg gcaagaatgt taaagcaaaa ttggatcatg ttcaatttgc agaatttaag 120
attgacatgg attctaaatt tgaaaatagc aacaaagatt taaaggaaga attgtgccct 180
ggaaatctaa gtctagttga tacaaggcaa cacagttcag cacattcaaa tcaagataaa 240
aaagacgatg agctcgag 258

<210> 31
<211> 308
<212> DNA
<213> Homo sapiens

<400> 31
gaattcgcgg ccgcgtcgac gtctgcagtc caattaattt ctgaagtatt tctaaagaga 60
taaaattcca aactgtaaaa aggcaagttt taattccgtg ataaagtaca tttatgtgaa 120
atatttcatt ccttagtaat tcttgaggcg actgtgaaag gaggatggaa gaaatccagt 180
acttttactc tttacattgg acaagttatt tgtggagata attgctcaat ttcagtatga 240
gtgcagtgat tttgatgcag ttgtgttttt ctttttttatt ctttttttgga gaaggctctc 300
agctcgag 308

<210> 32
<211> 338
<212> DNA
<213> Homo sapiens

<400> 32
gaattcgcgg ccgcgtcgac gtaaccaacc atttcagcat ctgggttgct actagcctca 60
gcatatttta tttgctcaag attgccaatt tctccaactt tatttttctt cacttaaaaa 120
ggagaattaa gagtgtcatt ccagtgatac tattggggtc tttgttattt ttggtttgtc 180
atcttgttgt ggtaaacatg gatgagagta tgtggacaaa agaatatgaa ggaaacgtga 240
gttgggagat caaattgagt gatccgacgc acgtttcaga tatgactgta accacgcttg 300
caaacttaat accctttact ctgtccctgt tactcgag 338

<210> 33
<211> 217
<212> DNA
<213> Homo sapiens

<400> 33
gaattcgcgg ccgcgtcgac tttgggggga agtaaaaatt actctattat taaagtgatt 60
gttacagcca ctgatctgta cattaaaaat ttgtgaaatt attacaaata aattaaagct 120
tggtaaaatt gattgaaaaa acgttatggg ccaggcgcag tggctcatgc ctgtaatctc 180
aacagtttgg gaggccaaag caagcggatc actcgag 217

<210> 34
<211> 395
<212> DNA
<213> Homo sapiens

<400> 34
gaattcgcgg ccgcgtcgac ctgaaatcta gccgatctcc attttctggg actatgacag 60
ttgatggaaa taaaaattca cctgctgaca catgtgtaga ggaagatgct acagttttgg 120
ctaaggacag agctgctaat aaggaccaag aactgattga aaatgaaagt tatagaacaa 180
aaaacaacca gaccatgaaa catgatgcta aaatgagata cctgagtgat gatgtggatg 240
acatttcctt gtcgtctttg tcatcttctg ataagaatga tttaagtgaa gactttagtg 300
atgattttat agatatagaa gactccaaca gaactagaat aactccagag gaaatgtctc 360
tcaaagaaga gaaacatgaa aatggggcac tcgag 395

<210> 35
<211> 183
<212> DNA
<213> Homo sapiens

<400> 35
gaattcgcgg ccgcgtcgac gggagcaagg ataaaagaac aacaaaagac agaaaatttt 60
taatactagg gaaattagag catgtttgtg gacagaagga gaacaatcag aagacaggaa 120
gagaaaatag aaaataaaat agaagcacct aaaccgtcga ttgaattctg gcctgcactc 180
gag 183

<210> 36
<211> 248
<212> DNA
<213> Homo sapiens

<400> 36
gaattcgcgg ccgcgtcgac gtttgaagtt cattgaactt tgtggatgtg taaattatgt 60
ttttcatcaa attgggcaag tttttagcca ttatttctcc taaatttttc tgctttttcg 120
tctgctacct tggttactcc cattacacat atgtcagtat atttaatggt atcccatact 180
tctctcatgc tctgttcatt tttctttatt ctttttctc tctcttcttc agatggcata 240
aactcgag 248

<210> 37
<211> 222
<212> DNA
<213> Homo sapiens

<400> 37
gaattcgcgg ccgcgtcgac cgagtcgggt gacaaagtga gaccctgtgt ctaaaaagag 60
agagagaaaa aaagctaagg ctattttcag gttaggtcag gcttagtaac aaaaactttt 120
tgtgaaatgc ttcgatcatt gtttgccctg ctcctaattt cccttaaaac ctcccggatc 180
agacaggtgg tctttgaaga tgagttcaca gcctccctcg ag 222

<210> 38
<211> 264
<212> DNA
<213> Homo sapiens

<400> 38
gaattcgcgg ccgcgtcgac gtctggcctt cttaatttct ccatctgtac ccttttttag 60
gtgagctcag atctgacctg tttttctgag ctgcagactt gtttatctaa ttgtctaatt 120
gacatccact tggatgtctg atagttatcc cagatctaac attggccaaa tcgctctttt 180
ttccccccaa atctccctg atttctcctt taaaaccccc ttctcaaagc tatgctcaaa 240
ctaaaattct taggagctct cgag 264

<210> 39
<211> 226
<212> DNA
<213> Homo sapiens

<400> 39
gaattcgcgg ccgcgtcgac cttacataaa tttccatact cctttttat tctgacgtta 60
tacaatgaag aaagcaaagt tgaaattgtc atgtcatatg tgccctgtta tgtatgccta 120
catacattgg gtatgtgaga ttgtggcggg gggtggttcc cctagctttt tgtctataat 180
ttctgatttt attgcaataa atttaaacta caacacagag ctcgag 226

<210> 40
<211> 257
<212> DNA
<213> Homo sapiens

<400> 40
gaattcgcgg ccgcgtcgac ctagtttatg agtttattct tctgctcgtt tttggagttt 60
gtttttgttt ttctagtttt tttaggtgcg aggtgaggtt gttaattgga cgtctatctc 120
cttggtgtag acgtttagtg ctgtctagtc ctcttaacac tgtgtttgtc gcaacccaga 180
ggttttggcc tgttttcatt ttttaacaaa tgattttgtt ttctgtcata attttcttgt 240
ttacccaaaa cctcgag 257

<210> 41
<211> 220
<212> DNA
<213> Homo sapiens

<400> 41
gaattcgcgg ccgcgtcgac tgcaagtaag gactatggaa aatttccaaa ccagattgga 60
tcgttcagaa gccattcttc tgttgattct ttacactttc ctcccattag ccgaaagaat 120
tgagagccaa cctttccaaa tgcccctgtc cccgttagca ggcaccaaag agctcatttc 180
atttcctgct gccagcttaa tactcaccag ggcactcgag 220

<210> 42
<211> 289
<212> DNA
<213> Homo sapiens

<400> 42
gaattcgcgg ccgcgtcgac gttactttgg caacaagttc ttttaccctt acccgtggta 60
tttgaaaaaa atcaaggtaa ctgtctgaat actttaatat cagcttgttt tgtgaattct 120

ctgaatactg tcaacactct tatctaagtt tgcctttatg atgcagtggc agcattttga 180
attacttttc aaagaatact gttcatatgc attgtttttg tgtttcaaac taaatacagg 240
cagttttgtg ccagctgtga tattgtgcat accatatgga cacctcgag 289

<210> 43
<211> 252
<212> DNA
<213> Homo sapiens

<400> 43
gaattcgcgg ccgcgtcgac tttaacttaa aaattggctg tcatctcaga atttaactta 60
aatttataca aatattttgg tagtagttaa taggtatatt ggtagtaatt tggtagtttg 120
gtacatttgg tagtaattaa taggtacatt ttctgcctgt gtagattgtt taagaaaaca 180
gtgataatta tgcaaagaaa tgttcaaata actgtttggg tagtgatttt ggcttattgg 240
gtcactctcg ag 252

<210> 44
<211> 162
<212> DNA
<213> Homo sapiens

<400> 44
gaattcgcgg ccgcgtcgac ctaagttcca cattttattt agattccact agttttccca 60
ttaatgtcca tttctgttct agaatccaat ccttttcctg tatgctatgg attatcagac 120
ccctcacttg ggttcctctt acatcaccaa gatgtgctcg ag 162

<210> 45
<211> 281
<212> DNA
<213> Homo sapiens

<400> 45
gaattcgcgg ccgcgtcgac cttcttattt ccttgctgat gcatatctgc cgagtcttgg 60
ttctgttttg ggcctcatgt ccagcaagtg atagtctcat taggagcgtg gtagaacata 120
gcgaagcctg gcatttggtt cctcccctctg tctcccaaag tgctgggatt acaggcgtga 180
gccactgcgc ctggtctggt tcctcccgta tgtgtgccac ataccgtgag ccattcagat 240
ggatgaaagc aaacttccct ataaaaggcc agaagctcga g 281

<210> 46
<211> 265
<212> DNA
<213> Homo sapiens

<400> 46
gaattcgcgg ccgcgtcgac caccagacaa ctctatgagg gcagaaatta gatctatttt 60
gctcatcatt gtatctccag agtccaacac aatgcccagc attggagtaa ggtatttaaa 120
tattttaaaa aaattttttt tgagagacag ggtctccctc tgtcacccag gctggggtgc 180
agtggcaccc tcatggctca ctctaacagc ctcctgggct caagcagtca gaactacagg 240
tatgtgctac cacaccgagc tcgag 265

<210> 47
<211> 336
<212> DNA
<213> Homo sapiens

<400> 47
gaattcgcgg ccgcgtcgac aaagtgctag aaaatcatgt tccttgtcct gagtaagagt 60
taatcagagt aaatgcattt ctggagttgt ttctgtgatg taaattatga tcattattta 120
agaagtcaaa tcctgatctt gaagtgcttt ttatacagct ctctaataat tacaaatatc 180
cgaaagtcat ttcttggaac acaagtggag tatgccaaat tttatatgaa tttttcagat 240

tatctaagct tccaggtttt ataattagaa gataatgaga gaattaatgg ggtttatatt 300
tacattatct ctcaactatg tagcccgctt ctcgag 336

<210> 48
<211> 703
<212> DNA
<213> Homo sapiens

<400> 48
gaattcgcgg ccgcgtcgac gggacgtgaa attgacagtg aaaagtatgg cagatgagca 60
agaaatcatg tgcaaattgg aaagcattaa agagatcagg aacaagaccc tgcagatgga 120
gaagatcaag gctcgtttga aggctgagtt tgaggcactt gagtcagagg aaaggcacct 180
gaaggaatac aagcaggaga tggaccttct gctacaggag aagatggccc atgtggagga 240
actccgactg atccacgctg acatcaatgt gatggaaaac actatcaaac aatctgagaa 300
tgacctaaac aagctgctag agtctacaag gaggctgcat gatgagtata agccactgaa 360
agaacatgtg gatgccctgc gcatgactct gggcctgcag aggctccctg acttgtgtga 420
agaagaggag aagctttcct tggattactt tgagaagcag aaagcagaat ggcagacaga 480
acctcaggag ccccccatcc ctgagtccct ggccgctgca gccgctgccg cccaacagct 540
ccaagtggct aggaagcagg atactcggca gacggccacc ttcaggcagc agcccccacc 600
tatgaaggcc tgcttgtcat gtcaccagca aattcaccgg aatgcaccta tatgccctct 660
ttgcaaggcc aagagtcggt cccggaaccc caataaactc gag 703

<210> 49
<211> 247
<212> DNA
<213> Homo sapiens

<400> 49
gaattcgcgg ccgcgtcgac cacgtcatca gcatcacgta ctcatccctg cacatctcat 60
ggaaggctgg acacctcttc tcactacaag gcttcacctc ctctccggtg ccctcgcagg 120
ggtagccctg cgtgcccgtg gcctggcaca tgcggaagcg gcgctgccag cctgtgtcac 180
acgtcttaga gcacaggctc cacgcattcc atggccccca cttgctatca gtggccgggc 240
actcgag 247

<210> 50
<211> 290
<212> DNA
<213> Homo sapiens

<400> 50
gaattcgcgg ccgcgtcgac aaataatacg tattccatac tcaggatagc tggttagcta 60
gcaaaagaat taacatttgt gatatttact tgcaaacttt actgaagcca tattcattat 120
cttccttgtc accaaggctg ttgaccttaa ataaacatta agttgatttt gcacaacact 180
gtatttgtgt gtgtgcatgt gcctgttttt gtgtgtgtat gtttgtggga aataattatg 240
tttgtttccg catatattca tttttaatgc attctgtaac ttttctcgag 290

<210> 51
<211> 417
<212> DNA
<213> Homo sapiens

<400> 51
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tggaggctgt ggccgttttg ttttcttggc taaaatcggg ggagtgaggc gggccggcgc 120
ggcgcgacac cgggctccgg aaccactgca cgacggggct ggactgacct gaaaaaaatg 180
tctggatttc tagagggctt gagatgctca gaatgcattg actgggggga aaagcgcaat 240
actattgctt ccattgctgc tggtgtacta ttttttacag gctggtggat tatcatagat 300
gcagctgtta tttatcccac catgaaagat ttcaaccact cataccatgc ctgtggtgtt 360
atagcaacca tagccttcct aatgattaat gcagtatcga atggacaagt cctcgag 417

<210> 52
<211> 379
<212> DNA
<213> Homo sapiens

<400> 52
gaattcgcgg ccgcgtcgac tgaagatgct gcggctggca ctaactgtga catctatgac 60
ctttttttatc atcgcacaag cccctgaacc atatattgtt atcactggat ttgaagtcac 120
cgttatctta tttttcatac ttttatatgt actcagactt gatcgattaa tgaagtggtt 180
attttggcct ttgcttgata ttatcaactc actggtaaca acagtattca tgctcatcgt 240
atctgtgttg gcactgatac cagaaaccac aacattgaca gttggtggag ggtgtttgc 300
acttgtgaca gcagtatgct gtcttgccga cggggccctt atttaccgga agcttctgtt 360
caatcccagc ggactcgag 379

<210> 53
<211> 105
<212> DNA
<213> Homo sapiens

<400> 53
gaattcgcgg ccgcgtcgac aagaagcgta tggactacta tgactctgaa caccatgaag 60
actttgaatt tatttcagga acacgaatgc gcaaactcgc tcgag 105

<210> 54
<211> 237
<212> DNA
<213> Homo sapiens

<400> 54
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ccagctgtgg tcaggtacag tgctaagcac tttaattaca ctgttaagtc accaggacag 120
aaactccccc acaccagctc tgtaataggg gtgagtgttg gacataagca gggagttgac 180
aagaagccaa gactaggctg ggcacagtgg ctcacgcctg taattccagc cctcgag 237

<210> 55
<211> 220
<212> DNA
<213> Homo sapiens

<400> 55
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ctgttttttt ttaaataaag caatttgttc taataattat ttcctaatca tcttaaaata 120
cgctgtcatt aacggcagag aaagctcttt atttcctttt gaattttaat actgggtaga 180
aatataattt acaatgaaag tcagcaggaa agaactcgag 220

<210> 56
<211> 247
<212> DNA
<213> Homo sapiens

<400> 56
gaattcgcgg ccgcgtcgac caaaaataaa taagctcagg aataaagtga attggaagac 60
agaaataatt tctgaaatga accagatata tgaggataat gataaagatg cacatgtcca 120
agaaagctat acaaaagatc ttgattttaa agtaaataaa tctaaacaaa aacttgaatg 180
ccaagacatt atcaataaac actatatgga agtcaacagt aatgaaaagg aaagttgtaa 240
tctcgag 247

<210> 57
<211> 229
<212> DNA

<213> Homo sapiens

<400> 57
gaattcgcgg ccgcgtcgac gtgtgttgga aaacactgtg ggctcaatga aaaacccctt 60
tcggcccagt cctttgcctc cacattccag cttggcgccc tcagccacac cactctggat 120
gagttccaag atcttgttgt actgtttctt atcaatctgg ggaccctgct cagtggtggg 180
gtcaaaggga ctccccacta cgcgcctctt ggcccgctcc acactcgag 229
<210> 58
<211> 146
<212> DNA
<213> Homo sapiens

<400> 58
gaattcgcgg ccgcgtcgac tgagggagag attggtcagt ctgttcaaaa ttacagatag 60
gaagaagagt aagttctggt gttctcttgc acagtagggt aactatggtt aacaatattg 120
catatttcaa aacagctggc ctcgag 146

<210> 59
<211> 139
<212> DNA
<213> Homo sapiens

<400> 59
gaattcgcgg ccgcgtcgac cctgcacctt gtctgtctga caaacacctt cttatttgat 60
gctattcaag cctcacctcc tcttactctg cactcctttc tactttcatc ttccagatga 120
aaataaccac ttcctcgag 139

<210> 60
<211> 325
<212> DNA
<213> Homo sapiens

<400> 60
gaattcgcgg ccgcgtcgac cctttccgtt tgatttgtca ctgcttcaat caataacagc 60
cgctccagag tcagtagtca atgaatatat gaccaaatat caccaggact gttactcaat 120
gtgtgccgag cccttgccca tgctgggctc ccgtgtatct ggacactgta acgtgtgctg 180
tgtttgctcc ccttcccctt ccttctttgc cctttacttg tctttctggg gtttttctgt 240
ttgggtttgg tttggttttt atttctcctt ttgtgttcca aacatgaggt tctctctact 300
ggtcctctta accatggtgc tcgag 325

<210> 61
<211> 241
<212> DNA
<213> Homo sapiens

<400> 61
gaattcgcgg ccgcgtcgac tcttattcct tcttgaaaat tttaagtgtt atggttttat 60
atagttcagt tctttgagat ttttgaaaag agtattttca gtaataaacg tgccatctct 120
atctcttaaa catttattac aacaattgtt ttaaaataga aaaaataaaa tgcttctatt 180
ttaccttttt ttcatttcag aagcattatt ctgtttatta acagtgtccc atctcctcga 240
g 241

<210> 62
<211> 392
<212> DNA
<213> Homo sapiens

<400> 62
gaattcgcgg ccgcgtcgac gcacgtggca ctggaggagc ggcgttttgc acccccaggc 60
ttcagggaag ttctcaatag aaaacccatt agttgtctca tatgactggt attaactctg 120

acttaaaaaa aaaatcaagc cagaaacagt gtgttgagca agaaaggaaa aaagattcct 180
tattaaaagt tcaaacataa acagaaggct caggacctcc ttgactacct ctcttgccac 240
gtggcccagg agaaaccatg gctggcagtt taacagccac cctcctgctt ctgctctgtg 300
cattttgtgg atgcacatcc acgtttttct tttcttttga gacagggtct cactctgttg 360
cccaggctgg aatgcaatgg cgcgatctcg ag 392

<210> 63
<211> 293
<212> DNA
<213> Homo sapiens

<400> 63
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taaactacct acactgccaa aaaactatag caacacctca aaaatattta gtgaagaaaa 180
ttctgatgaa attattaagc tcttgggaga cgtcaggctt aatattctcg tccttggagg 240
aagctctgga tttattgagc tttatgctta tggaatgttt aaaattgctc gag 293

<210> 64
<211> 449
<212> DNA
<213> Homo sapiens

<400> 64
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atctggaagg tctgggcaga tcacacattg cttcccccag tccttgtcct gacagaatgc 120
ccctaccatc acccactgag tctaggcaca gcctctccat ccctcctgtc tccagccctc 180
cggagcagaa agtgggtctt tatcgaagac aaactgaact tcaagacaaa agtgaatttt 240
cagatgtgga caagctagct tttaaggata atgaggagtt tgaatcatct tttgaatctg 300
cagggaacat gccaaggcag ttggaaatgg gcgggctttc tcctgccggg gatatgtctc 360
atgtggacgc tgctgcagct gctgtgcccc tctcatatca gcacccaagt gtagatcaga 420
aacaaattga agaacaaaag gaactcgag 449

<210> 65
<211> 247
<212> DNA
<213> Homo sapiens

<400> 65
gaattcgcgg ccgcgtcgac ggggctggag tataatagga gcggagagat agaaaagaga 60
ggcaaaggaa gatcacagcc atcacaaagc aatctaggca gaaagtgata ggaaaaaaag 120
gagaaactat tcattctcaa ctattgctgg tatacacaaa cctctgaaaa tagccaatta 180
gtgttagatg ttctatcagg cgtggggaat ggggatggtt acaaaattca tcctcccagt 240
tctcgag 247

<210> 66
<211> 227
<212> DNA
<213> Homo sapiens

<400> 66
gaattcgcgg ccgcgtcgac cgcggccgcg tcgacctgct ggcagggttt ttttgtttta 60
tttgtttgct tatttttaaa ttaactgttt tgagctttga atacttaagg ctttagaggg 120
agaacccaat tttcaattat gttggctttt tataaagctt gagttatgta agatttaaat 180
aaaagtttgc taccaagatg attgccttat tgaatagatc actcgag 227

<210> 67
<211> 384
<212> DNA
<213> Homo sapiens

<400> 67
gaattcgcgg ccgcgtcgac tgacattcct gttggagact tacatccagg ggaacagctg 60
gaaaaaatgt tgtatgttcg ctgtggaaca gggggttcca gaatgtttct tgtatatgtt 120
tcttacctga taaatacaac cgttgaagaa aaagaaattg tttgcaagtg tcacaaggat 180
gaaactgtaa caattgaaac agtctttcca tttgatgttg cggttaaatt tgtttctacc 240
aagtttgagc acctggaaag ggtttatgct gacatcccct ttctgttgat gacggacctc 300
ttaagtgcct caccctgggc cctcactatt gtttccagtg agctccacct tgctccatcc 360
atgaccacag tggaccagct cgag 384

<210> 68
<211> 302
<212> DNA
<213> Homo sapiens

<400> 68
gaattcgcgg ccgcgtcgac ctaaaccgtc gattgaattc tagacctctc acccaagctc 60
ctctctcctt gcagtgaaga ccctcccctc cagtaacctt tttttcctgt gaaaacccct 120
caaccccttt tcaggacctc tctcaacccc atcttcccat ttgtgtccca ccagtcccct 180
ccccaacctg ccaatatttc aataacccca cgcccaccag ttgctgccgc ttttctgccc 240
caatgcacat accctggaac ctggtttctc tccttcgttg gggcccaacc cccctcctcg 300
ag 302

<210> 69
<211> 184
<212> DNA
<213> Homo sapiens

<400> 69
gaattcgcgg ccgcgtcgac gatacaatct gcaaatgata aaaatttcga cgatgaagat 60
tctgtggatg gtaacagacc ttcctctgct agttctacat catccaaggc tccaccaagt 120
tctcggagaa acgttggaat gggaaccacc cgccggcttg gttcatccac ccttggacct 180
cgag 184

<210> 70
<211> 262
<212> DNA
<213> Homo sapiens

<400> 70
gaattcgcgg ccgcgtcgac caaaaacaaa acaaaacaaa aaaactttgc ccacttcttt 60
ttatattgtt gtgtcttctg aggttatcac ctgaagggat atttatggac tgaagagttg 120
ttagtattat ttgtgtatct tttactttgt tagaatacat acttatcttc taatgaaatt 180
attccagaaa actttaaaag agtcatttaa attgcctgtt agtatagtta taaaattgac 240
agagcagtgg caaaaactcg ag 262

<210> 71
<211> 166
<212> DNA
<213> Homo sapiens

<400> 71
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catgatgatg gtgaaactgc agcaatcatt ttatgcaatg tctgtggaaa tttatgtaca 120
gactgtgaca gattccttca ccttcatcga agaaccacaa ctcgag 166

<210> 72
<211> 370
<212> DNA
<213> Homo sapiens

<400> 72
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt gtaagccaaa ctgtcgttaa 60
gtcggggact gtctgtatac cctaaagtga tttccttatc cttcccaaaa ccgactcttc 120
ctatattatc tgatttaaga aataggagta ataccactta ccttacagct tcctgggtca 180
ctctctcatt gagttaacca atagatcttt gaattcctaa ccttttttcct atccatcctt 240
cccttttcag tgttctgttc ctatgctagt tcatgccttc ttacatctct tgctgaggtt 300
tttccatatt ctcgtaactt gtctccttgc gtctactctt cagtctgtct tccttaccac 360
cagactcgag 370

<210> 73
<211> 287
<212> DNA
<213> Homo sapiens

<400> 73
gaattcgcgg ccgcgtcgac ggcaccaagc ggaaaataaa ctccaacctg ggcaacagag 60
caagactctg tctaaaaaaa aaaaaaagtt aatggcattt ctatccctgt cttgctaact 120
agaaacctgg gaggagactc aagactgttc tcttcagtca gcttcccatg cctattttat 180
atcccactag tttattttat gagctatgtc tcaaaatcat actcttctct ctttgtctct 240
cttacttgat cattggtcag gcctgtacct tcagccaccc tctcgag 287

<210> 74
<211> 212
<212> DNA
<213> Homo sapiens

<400> 74
gaattcgcgg ccgcgtcgac ccaatgagga aggcaaagaa aatcgagacc gggacagaga 60
ctatagtcgg cgacgtggtg ggccaccaag acgggggaga ggtgccagcc gtggacgaga 120
gtttcgaggt caggaaaatg gattggatgg caccaagagt ggagggcctt ctggaagagg 180
aacagaaaga ggcagaagga taccggctcg ag 212

<210> 75
<211> 314
<212> DNA
<213> Homo sapiens

<400> 75
gaattcgcgg ccgcgtcgac acccctcccc catccaactt tcaggttatc tgaaaataaa 60
gactagttat aaattgacaa gttgtcggga aattttgcag caataaaggg ggcaagtgga 120
aggcagagca ctttctagat cttgactttt ccatggccca tgtaagatca ctaaactgtt 180
catttatttt tcgacagtta gcacctgctg ttgatatata ctaaatggcg ggaacatgtt 240
ttttttgttg tttgtttgtt ttgttttgtt ttgtttttcg agacggagtc tcgctctgtc 300
cccaagctct cgag 314

<210> 76
<211> 268
<212> DNA
<213> Homo sapiens

<400> 76
gaattcgcgg ccgcgtcgac aagtgagcac acgaaatcaa agcatgaaag cagaaaagaa 60
aagaggaaaa actatccaga atggcaggga attgtttgag tcttcccttt gtggagacct 120
tttaaatgaa gtacaggcaa gtgagcacac gaaatcaaag catgaaagca gaaaagaaaa 180
gaggaaaaaa agcaacaagc atgactcatc aagatctgaa gagcgcaagt cacacaaaat 240
ccccaaatta gaaccagagg acctcgag 268

<210> 77
<211> 295
<212> DNA

<213> Homo sapiens

<400> 77
gaattcgcgg ccgcgtcgac aattttaagt taagtcccat atgaaggctc aaaagagcgg 60
taaagaacaa cagcttgaca ttatgaacaa gcagtaccaa caacttgaaa gtcgtttgga 120
tgagatactt tctagaattg ctaaggaaac ggaagagatt aaggaccttg aagaacagct 180
tactgaaggc cagatagcag caaatgaagc cctgaagaag gatttagaag gtgttatcag 240
tgggttgcaa gaatacctgg ggaccattaa aggccaggca gctcaggccc tcgag 295

<210> 78
<211> 148
<212> DNA
<213> Homo sapiens

<400> 78
gaattcgcgg ccgcgtcgac acatactttg cattttccac tgttactttg ataccatttt 60
tagttgcgaa acacgtggca tgttctcgga aatgaatagc tttcaagata gtggagagat 120
tcctaacgtt gtcaaggctg agctcgag 148

<210> 79
<211> 224
<212> DNA
<213> Homo sapiens

<400> 79
gaattcgcgg ccgcgtcgac ataaatttgc tgcggctgga ctcaaggaac atctcaatgt 60
ctttctctct gaccttggga gcccacggga gccctttggg gcaagtcagc ctgtcagtct 120
gtgggtgctg tagcggggga ggcatcactt catcccgttc caggggaaac gtctccccct 180
ccagactgtt gtcatcatca ttctcctctt cctctactct cgag 224

<210> 80
<211> 288
<212> DNA
<213> Homo sapiens

<400> 80
gaattcgcgg ccgcgtcgac gtttcaaata aatgcttaaa gtttaatatt acttgaaggc 60
aagagaagac aaagaacccc caaaatatta gaaaagatta taaaagacat tataaggttg 120
gaattcttac tctttgaatt ccatatttgt tttattattt actaatgttc taatattaag 180
ttcatgataa gtcacacaca tatgttttct ccacactctt tccacctatc agtttttcta 240
acatattatt gttttaaaat tcttaatttt attacagcaa tcctcgag 288

<210> 81
<211> 251
<212> DNA
<213> Homo sapiens

<400> 81
gaattcgcgg ccgcgtcgac tttgaaggtt gtttgttgtt gttgattctt agaggcagat 60
atctgactac gttgtgttta tactttagct atatgaatgt ttacctattg aaaatactgt 120
tttattaaaa attactttgt tccttatacc ttaggagata aatgtacatt ttaaaagtgt 180
tcctcagtca ggtgaggtgg cttatgcctg taagttcaac acttggggag gccgaaccag 240
gaggactcga g 251

<210> 82
<211> 498
<212> DNA
<213> Homo sapiens

<400> 82

gaattcgcgg ccgcgtcgac gtccatggct gaggagaaga ggaagcgaga ggaagaggag 60
aaggcacagc aggtggccag gaggcaacag gagcgaaagg ctgtgacaaa gaggagccct 120
gaggctccac agccagtgat agctatggaa gagccagcag taccggcccc actgcccaag 180
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gacaatgagg agcccccagc tctgcccccct aggactctgg aaggcctcca ggtggaggaa 360
gagccagtgt acgaagcaga gcctgagcct gagcccgagc ctgagcccga gcctgagaat 420
gactatgagg acgttgagga gatggacagg catgagcagg aggatgaacc agagggggac 480
tatgaggagg tgctcgag 498

<210> 83
<211> 277
<212> DNA
<213> Homo sapiens

<400> 83
gaattcgcgg ccgcgtcgac cttcagtcca tcttacatat ggccaagttt gcttcctaaa 60
agttcagatg ttgtcatatt gctataatgc tcaagactct tccactcccc actgcctaag 120
gaattcagta cagacttctc agggcgcttt gaacacaaat ccaaccactc tacgcagccc 180
tatctcccac tgtcccctcc acaagcttca ttctttatta agatggggac tatctggtat 240
gcagatagcc agccacatct tcccctctgc cctcgag 277

<210> 84
<211> 526
<212> DNA
<213> Homo sapiens

<400> 84
gaattcgcgg ccgcgtcgac ggatggtgaa cgggcaggag catctagtga ttgatggctt 60
ctgggtgttt ttaacgagag tttgaacaaa gactcagaaa tggtttttaa aataacagtc 120
ccatgtggcc cacatagaaa atattgggat attttaaggt gtggattcac ttttccatat 180
ttaaacactt gtttctactt ggtgaaatac acaggtgaca agtcaacttc aggaataatg 240
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gagcctaaaa tctaggtcag agtcccgtat gaaagaaatc agataagttg agagagggcg 420
tgtgcaggtt ggaaatggtg gcgtccatct ctgctggggc gtcgatgcca cctggctgga 480
caggtggagc ctggaaggta gggaggctcg gaacatgaag ctcgag 526

<210> 85
<211> 307
<212> DNA
<213> Homo sapiens

<400> 85
gaattcgcgg ccgcgtcgac gtaaccccgg ctcccctcct cccccacccg ctggaaacca 60
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gctcgag 307

<210> 86
<211> 194
<212> DNA
<213> Homo sapiens

<400> 86
gaattcgcgg ccgcgtcgac cgaggtattg gtgtaggaag agaaaaagag attgatgggg 60
taaatttgac tcacacatat atcatcaact cattttcaag agatttgtcg tcatcaattg 120
attttcaaca gagacacgag agctagtcca tgaggaaagg aaagcatata acaaatttgc 180

tgggactact cgag 194

<210> 87
<211> 223
<212> DNA
<213> Homo sapiens

<400> 87
gaattcgcgg ccgcgtcgac atttggttct ttcctactca gaactactca gaaacaacta 60
tatatttcag gttatttgag cacagtgaaa gcagagtact atggttgtcc aacacaggcc 120
tctcagatac aaggggaaca caattacata ttgggctaga ttttgcccag ttcaaaatag 180
tatttgttat caacttactt tgttacttgt atcaatcctc gag 223

<210> 88
<211> 265
<212> DNA
<213> Homo sapiens

<400> 88
gaattcgcgg ccgcgtcgac gacaacatca aaagcaactg atgactctgg aaaacaagct 60
aaaggctgag atggatgaac atcgcctcag attagacaaa gatcttgaaa ctcagcgtaa 120
caattttgct gcagaaatgg agaaacttat caagaaacac caggctgcca tggagaaaga 180
ggctaaagtg atgtccaatg aagagaaaaa atttcagcaa catattcagg cccaacagaa 240
gaaagaactg aatagttttc tcgag 265

<210> 89
<211> 176
<212> DNA
<213> Homo sapiens

<400> 89
gaattcgcgg ccgcgtcgac aaattggaaa ctgtagaagt gttaatgtgt cctatggact 60
caatagcaga gtttattttt gtttttaatg gcaaggcttc tagagtcaat gattgtatga 120
gtttgctact ctggctgtgc ttacagcttc atccaagtac aaaggaagaa ctcgag 176

<210> 90
<211> 196
<212> DNA
<213> Homo sapiens

<400> 90
gaattcgcgg ccgcgtcgac ggtgtgttat tgtttttatt ggctgtacct ggtagaattg 60
aaaaatcagc atttctattg tagcctacta atttcagtga aatatttctt tagaaatata 120
aaatctggaa ctttccatca ttatgcctcc ccaaaataat agaggacttt acacacagat 180
aacacctgcc ctcgag 196

<210> 91
<211> 348
<212> DNA
<213> Homo sapiens

<400> 91
gaattcgcgg ccgcgtcgac gggggtggga aggagtgggt ggagctggcc tccctcagaa 60
tcaagctggg ctcacttgtg atttaggagg tatgaagtgg ggaatcagtc tttgtctacc 120
ttctgttccc tgcacccaga cctcctccac tttcttaggg taagaaatgc ctttgatagg 180
ggtaaagcct ttctttccag agtttgagat cagagacttc aatatgcaaa gtcttggggt 240
atgctgacag atcagcacac gtgcttttta tatttaaata attctcacaa cctatgtggc 300
ttgtcaggaa tgaagaatct aaagcttatt gtgctagggg cgctcgag 348

<210> 92

<211> 350
<212> DNA
<213> Homo sapiens

<400> 92
gaattcgcgg ccgcgtcgac gtctaatttc cttagtgctt gataattttt tattacggtc 60
tggagatttt atttaaaatt acttgtcaga ataattttga ggcttataat aaacatactt 120
tacttttaag agcaaagttt gcttctttac ccaggagcat tgtcagtcag ggaacaactt 180
aaaccaagtt ccttgagaac acattctaaa ttttttagaa cagcatctta ataaacaaaa 240
acaacactca cgtttcagat tttatatttt tgtttcccaa aggatttata tcactgtatt 300
tccaagtcat tgtcatgtta atgtctttca aatcaacatc tctgctcgag 350

<210> 93
<211> 286
<212> DNA
<213> Homo sapiens

<400> 93
gaattcgcgg ccgcgtcgac tttacatatt gtctattgct gcttttacac aagaacagca 60
gagttgtgta gttgcgacag agaccatatg gaccaccagg cctaaaatat ttactgtctg 120
actctttaca gaaaaagttt atctggcctc tagtctaacc tatcaatttt aaaaaaacag 180
ctttttggag aaagaattca catactgtgc aattcaccca tttatataca attcaatggg 240
ttttagtata ttcacagaga tgtgcaacca ccaccccagt ctcgag 286

<210> 94
<211> 140
<212> DNA
<213> Homo sapiens

<400> 94
gaattcgcgg ccgcgtcgac gcatgagcca ccatgcctgg cccctttctt tcatctctcc 60
taattttttc gacattctcc tacccatttt ctcctttcct gggccttcaa tttgtgccca 120
cctccacccc caccctcgag 140

<210> 95
<211> 176
<212> DNA
<213> Homo sapiens

<400> 95
gaattcgcgg ccgcgtcgac cgagtatttt actttattct tttaagaaac tgagtcattt 60
gtcctgttgt gtttcccctt atctggattt tgtaatcata tcctggaatg tggtttcaga 120
ggtgtctctg tcttttgtat ttcatgtcag tttatactcc agtcgataag ctcgag 176

<210> 96
<211> 601
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (191)

<400> 96
gaattcgcgg ccgcgtcgac aaacaaaaga atcaaactac gctaaattga ttgaaatgaa 60
tggaggagga accggctgta atcatgaatt agaaatgatc agacaaaagc ttcaatgtgt 120
agcttcaaaa ctacaggttc taccccagaa agcctctgag agactacagt ttgaaacagc 180
agatgatgaa natttcattt gggttcagga aaatattgat gaaattattt tacaactaca 240
gaaattaact ggccagcaag gtgaagagcc cagcttggtg tccccaagta cttcttgtgg 300
ctcattgact gaaagactac tgagacaaaa tgctgagctg acagggcata tcagtcaact 360

gactgaagag aagaatgact taaggaacat ggttatgaag ctggaagagc agatcaggtg 420
gtatcgacag acaggagctg gtagagataa ttcttccagg ttttcattga atggtggtgc 480
caacattgaa gccatcattg cctctgaaaa agaagtatgg aacagagaaa aattgactct 540
ccagaaatct ttgaaaaggg cagaggctga agtatacaaa ctgaaagctg aaccgctcga 600
g 601

<210> 97
<211> 347
<212> DNA
<213> Homo sapiens

<400> 97
gaattcgcgg ccgcgtcgac gaagggaacg ttcagctgga aactggagat aaaataaact 60
ttgtaattga taacaataaa catactggtg ctgtaagtgc tcgcaacatt atgctgttga 120
aaaagaaaca agcccgctgt cagggagtag tttgtgccat gaaggaggca tttggcttta 180
ttgaaagagg tgatgttgta aaagagatat tctttcacta tagtgaattt aagggtgact 240
tagaaacctt acagcctggc gatgatgtgg aattcacaat caaggacaga aatggtaaag 300
aagttgcaac agatgtcaga ctattgcctc aaggaacagg gctcgag 347

<210> 98
<211> 351
<212> DNA
<213> Homo sapiens

<400> 98
gaattcgcgg ccgcgtcgac cttacctgtc ctaggggagt aggcaagcac ttccactagg 60
gaggggggtgg gggaaaggaa tgacacatga catacatggc atacacatta agcagttgat 120
catatgtctg actgggttcc agtttcttgg gaatgttggt ccccttgttc aggcttgcat 180
attttaaact aaaaatttca gtctattgtt tttagtaact tcatttatag tcctccataa 240
caagttagaa ggatgtatct gctaccattt attcctataa ttttagaaag ttggggcttg 300
acattatact catttagtga gagtagatgc aaaaaagtgc aggggctcga g 351

<210> 99
<211> 446
<212> DNA
<213> Homo sapiens

<400> 99
gaattcgcgg ccgcgtcgac gaagaaggaa ggcgcgagtg aggaaaggag gtactgtaga 60
tgccctccaa atccttggtt atggaatatt tggctcatcc cagtacactc ggcttggctg 120
ttggagttgc ttgtggcatg tgcctgggct ggagccttcg agtatgcttt gggatgctcc 180
ccaaaagcaa gacgagcaag acacacacag atactgaaag tgaagcaagc atcttgggag 240
acagcgggga gtacaagatg attcttgtgg ttcgaaatga cttaaagatg ggaaaaggga 300
aagtggctgc ccagtgctct catgctgctg tttcagccta caagcagatt caaagaagaa 360
atcctgaaat gctcaaacaa tgggaatact gtggccagcc caaggtggtg gtcaaagctc 420
ctgatgaaga aaccctgacg ctcgag 446

<210> 100
<211> 266
<212> DNA
<213> Homo sapiens

<400> 100
gaattcgcgg ccgcgtcgac ccgtccctct acgcgttttg gtccctgttt ggtgctttct 60
gtttgcagct acggcagtga gtatatctgg gcataggaac caatcagaaa caatcgcttc 120
agcaatcaag accattgttc atcatggagg aacccatgga tacctctgag cctctatctg 180
cattaccatt cactgggcag cagtcttttg agccaagtgg caaatttgga cagtatccat 240
cgatgcagat gaaccacata ctcgag 266

<210> 101

<211> 290
<212> DNA
<213> Homo sapiens

<400> 101
gaattcgcgg ccgcgtcgac aaaaaagtta ctgtatttta gactaaatgg gaaagataag 60
agatgatgct acagagtaat tcagaggcta aaacatgtag ggtcttgta ggccatattt 120
ctttaaaaaa cagattaaaa aaacttattt tgggaaaaaa ctttcggaga tggccaaaga 180
acatgacaac tgccatcata cccttcatct gtattcattc attattaacg ttttcctaca 240
tttgcttatt tctccgtata ggggtatttt tcaagactgc tgatctcgag 290
<210> 102
<211> 234
<212> DNA
<213> Homo sapiens

<400> 102
gaattcgcgg ccgcgtcgac gcagactgtg caagctccca gctgttcctt cttctgctgt 60
ccctagccaa caaacacagt ggcatttaca acttttggca tatagaaatt atatgtaaaa 120
attcaggtag tactatttct tttagtcctg ttagtctctt tctctctcta tatatatgta 180
tctctggaca tgcatctctg gttatatctt gaggcttttg ctgcaacccct cgag 234

<210> 103
<211> 240
<212> DNA
<213> Homo sapiens

<400> 103
gaattcgcgg ccgcgtcgac ggggccctgg tcacgcttga aaatggtctc actaagtaag 60
ttccggatga aattaaagaa aacactcctt aggtccttct tttctgcttg ttcttggtca 120
cctacaatgg gagcagactt aaggcaagat tcatcgggag ctacaggagg ttcattggca 180
ggaaagttgg tggtgccagc agcttcaacg aagctccgtg catcccttct tcccctcgag 240

<210> 104
<211> 154
<212> DNA
<213> Homo sapiens

<400> 104
gaattcgcgg ccgcgtcgac cgtcgattga attctagtcc tgtttctttg cctccccaac 60
aaacaccgtg ttccaagaaa tgccaagcct gaagaagaat gaaggtaggt ctgaaatttt 120
cagaggccca agcaagactc tggaatctct cgag 154

<210> 105
<211> 273
<212> DNA
<213> Homo sapiens

<400> 105
gaattcgcgg ccgcgtcgac ggtgttaggg gtttaaaggg agttgactga ataaggtcaa 60
gatctgctgg tcttgaaaat gaaacatctt cattatttca aatgtgtaac aactactgct 120
tgctatttgg cactatctgc ttctgtgctt catattaaat cctttaactt gcttcaatgt 180
gcatgtgctg gattgagagc cacttttgtc cccctgggcc cacaggaggg tcccggcgag 240
gacccccgcc ctctggctcc cggggcgctc gag 273

<210> 106
<211> 262
<212> DNA
<213> Homo sapiens

<400> 106

gaattcgcgg ccgcgtcgac gtggcctggg ctcctaatac aggtaaattg tctccaaagg 60
actagtaaag gtgactgggt catcctcctg ccccagggac actgattaga gaaaatccgt 120
ctgtgctggc aatacggcag tgctggacac tcggaattcc cttgaaggca aaagcaagga 180
acagagcgtg attaggtact ggacacctgc caagtgctgg gctctctcca gtttacagat 240
gaggaaactg aggctcctcg ag 262

<210> 107
<211> 259
<212> DNA
<213> Homo sapiens

<400> 107
gaattcgcgg ccgcgtcgac tgatggtata agtatttacc tgggacaagg ggcttcctta 60
tttggctaaa ttatctaaaa tgcataggaa gaatagaact tttagttggc tatttttctt 120
ttatctatct atctatctat ctatctatct atctatctat ctatcatctc gttctattgc 180
ccagactgga gtgcagaggt gcaatcatag ctcactgcag cctagaactc ctgggctcat 240
gcaattgtct cacctcgag 259

<210> 108
<211> 260
<212> DNA
<213> Homo sapiens

<400> 108
gaattcgcgg ccgcgtcgac ggttttacca tcctggctaa cacggtgaaa ccctgtctct 60
actaaaaata caaaaaatta gctgggatta caggcgtgag ccaccgcgcc cggccaaaat 120
aaaattttta aaaggatatt tacatcagtg tagtatgtga agtaaacaag aaaaagataa 180
aactcacttt ttaagtaaaa acagtcatgt gcttgaagta tgttgtaatc tttatcagaa 240
aagtatggga aggactcgag 260

<210> 109
<211> 255
<212> DNA
<213> Homo sapiens

<400> 109
gaattcgcgg ccgcgtcgac ttggattaca ggtccctgct gccacgccca gctaattttt 60
gtatttttag tagagatggg gtttctccat gttggctcag ctagtctcga actcctgacc 120
tcagatgatc tgccagcctc ggcctcccaa agtgatggga ttacaggcat gagccattgc 180
gcctggccca ggacatttat ttttattgct aaatacattt cagtcattta tgtatttgtt 240
ttctcccccc tcgag 255

<210> 110
<211> 423
<212> DNA
<213> Homo sapiens

<400> 110
gaattcgcgg ccgcgtcgac tccttcctag ccttggtcgt cgccgccacc atgaacaaga 60
agaagaaacc gttcctaggg atgcccgcgc ccctcggcta cgtgccgggg ctgggccggg 120
gcgccactgg cttcaccacg cggtcagaca ttgggcccgc ccgtgatgca aatgaccctg 180
tggatgatcg ccatgcaccc ccaggcaaga gaaccgttgg ggaccagatg aagaaaaatc 240
aggctgctga cgatgacgac gaggatctaa atgacaccaa ttacgatgag tttaatggct 300
atgctgggag cctcttctca agtggaccct acgagaaaga tgatgaggaa gcagatgcta 360
tctatgcagc cctggataaa aggatggatg aaagaagaaa agaaaagacgg gagctatctc 420
gag 423

<210> 111
<211> 203
<212> DNA

<213> Homo sapiens

<400> 111
gaattcgcgg ccgcgtcgac attacctcat aagcattaac aaatcaggcc caaagagcgt 60
aagtcctaga aatttgtttt aaagcagccc tagtcatggt gctggtgcta ccgccttgtt 120
ttaggagcct gcctcctgtc agtatgaaac cctcacctga aaaatgccag cctggacacc 180
aaacactgag ccccttctc gag 203

<210> 112
<211> 257
<212> DNA
<213> Homo sapiens

<400> 112
gaattaagaa ttcgcggccg cgtcgacaaa aaaaaaaaaa aaaggatacc aaaattctca 60
agtcaaatta taagggtttt aacattccca tttctacacc acgtgcaaga aaaacaaaat 120
ccttgttttc tgcctgcctt tatggtccgt tctcattttc agccccccttt cctcattcta 180
ctctattaat tatgccttta tatggatgca aacttgtaaa atatgtggcc tattttgtgt 240
gtatacgtgg tctcgag 257

<210> 113
<211> 348
<212> DNA
<213> Homo sapiens

<400> 113
gaattcgcgg ccgcgtcgac gttggaggag gaggaagagg aagtcgaaga ctgtggcttc 60
cttttttgt tacttggaga ctcgtcgcta cgggtggaca ggtctttgac ttttgaggat 120
ttgctggttt tggttttgga tggcttgtgg gatggggaag ggatgacggc tggtatcggg 180
gacacggcgg atggggcctt gaaggttgag tccatgatgc tgagggttgc ggccacatga 240
gggaaagctg tggtgtggga catgagggcg ctcgggtccg gcgatgtcac gaaagctgcg 300
tttgagagca tggctgatgt catcatgtaa gaagaggtga gcctcgag 348

<210> 114
<211> 303
<212> DNA
<213> Homo sapiens

<400> 114
gaattcgcgg ccgcgtcgac gggattacag gcataagcca ccgtgcccgg cctgtagatt 60
tcatttttag aaggtttgct tttaacagtt taaatttgta actcacataa aaaaaactta 120
ttataagaaa gagaaactag gtgttaggat aagtaaaaca ataagcattt ttgtctcttc 180
tgtttttgta gattttaatt gtttaactta ataaaatcac attaattggg gttcaactac 240
ttcacatttg taataacttt gggtgttaaa attgagatga aattcatcag gggaaaactc 300
gag 303

<210> 115
<211> 214
<212> DNA
<213> Homo sapiens

<400> 115
gaattcgcgg ccgcgtcgac aaaaaagaaa ggaagtggca tatttggtaa attgataaat 60
taccactgtc aaattatatt ggtgagtcta tatctattgt tgtccccaga tgttgccttt 120
gcaagaatta gtgtaaaatt ggaaaaaata ctcaatgttg aaagctgtca ttgttgagat 180
ctttatgaaa ttattgtgcc catgtccgct cgag 214

<210> 116
<211> 230
<212> DNA

<213> Homo sapiens

<400> 116
gaattcgcgg ccgcgtcgac tgcagatttt tctcttcacc tcatcaacag gtgatatagc 60
ccttttgggt gcttggcttt aagtacagtt cttagattca gctcctctac tttgtcaagt 120
ctaaatacta ttcctcagtg atgctgataa ccagcaaagt tttagtttct atgttgggca 180
tatttttggg gcagccctgt aaggatgtgc tccatggtac aagactcgag 230

<210> 117
<211> 195
<212> DNA
<213> Homo sapiens

<400> 117
gaattcgcgg ccgcgtcgac attaattttt cctgagagca gtagacttga ttagatgccc 60
ttttgtagtg tcatcaaatc ttagattatg agctcaaaga ttttatctct atatacacaa 120
tttctaatat taaaaaaaat agtcgggccg ggtgcggtgg ctcaggcctg taatccagca 180
cttaaggggc tcgag 195

<210> 118
<211> 460
<212> DNA
<213> Homo sapiens

<400> 118
gaattcgcgg ccgcgtcgag aagatcctat tcaagagctg accatagaag aacatttgat 60
tgagagaaag aagaaattac aggagaagaa gatgcatatt gcagccttgg catctgccat 120
attatcagat ccagaaaata atattaaaaa attgaaagaa ttacgttcta tgttgatgga 180
acaagatcct gatgtggctg ttactgttcg aaagctggta attgtttctc tgatggagtt 240
atttaaagat attactcctt catataaaat ccggcccctc acagaagcag aaaaatctac 300
taagacccga aaagaaaccc agaagttaag agaatttgaa gaaggcctgg ttagccaata 360
caagttttat ttggaaaatc tggaacaaat ggttaaagat tggaagcaga ggaagctgaa 420
gaaaagtaat gtagtttcct taaaggcata cggactcgag 460

<210> 119
<211> 239
<212> DNA
<213> Homo sapiens

<400> 119
gaattcgcgg ccgcgtcgac cagacagatc aaatggaaag gctccccccat cctgtcctct 60
acaccacctt gcagctgggc ctcagcaact gggcttttaa tttcagtcta attcaagtca 120
gcagcatagg gcagctcctg ggaaattggt ttacacatgc ggacaagccc agtagcccag 180
agctaaccca ctcaccatcc ctgaccacag aggagcagat aaggaagcaa gaactcgag 239

<210> 120
<211> 191
<212> DNA
<213> Homo sapiens

<400> 120
gaattcgcgg ccgcgtcgac tgggcatcat ctccataatc ttttcataaa gcatcaatga 60
tttcattatt cctctaccca aactttacaa gaagtatttt tttttttgag ccagtatctc 120
gctccatcac ccatgctgga atgcagtggc atgatcatag ctcactgcag cctcaacctc 180
ccaggctcga g 191

<210> 121
<211> 227
<212> DNA
<213> Homo sapiens

<400> 121
gaattcgctg ccgcgtcgac tttcttttga tcactatgcg gtgtcactat gtggtagtag 60
cgaggtcaga ctgtagcgag tgtttaaagt ttgcttcctt tgttttctgg gcttgtgggg 120
ctttttgtgg tacctgccct agcctagtca gtcattcccc atgctgcccc cttaggctag 180
agatgcccta ccgccctcag gcctcgctga atgtgccaaa cctcgag 227

<210> 122
<211> 166
<212> DNA
<213> Homo sapiens

<400> 122
gaattcgcgg ccgcgtcgac tgactcatag tcaagaccct ccaccagtaa catatattgg 60
cgagccagcc aggagaccac tacaggaaac actccattta ttccacctga cttcccactt 120
ggctgcatcc tcaaccattg aaatgaattt gaccctgata ctcgag 166

<210> 123
<211> 223
<212> DNA
<213> Homo sapiens

<400> 123
gaattcgcgg ccgcgtcgac ctaaaacccc agaatcatta ttgttgcatc tctttatttt 60
ccatctaatt attcatcaaa tagcagtaat gctttctttg aaatgtcttc tatatatctt 120
tgttttcgtt tctgcttttc atctcctcat ttctgttcct tccccttccc cttctctcga 180
tttacttcta acagctttat gtccctttca gtcgaccctc gag 223

<210> 124
<211> 178
<212> DNA
<213> Homo sapiens

<400> 124
gaattcgcgg ccgcgtcgac cagactggca acaaactttt gagtgagtgt taagatacaa 60
gaaaccctaa aagttcctag gagaaatgac tttaaactta gaattccttt ttttaatttg 120
gtccacacag ggtctcactt tgttgcccag gctgctgtac aatggcccag atctcgag 178

<210> 125
<211> 226
<212> DNA
<213> Homo sapiens

<400> 125
gaattcgcgg ccgcgtcgac agaaaagcac aaattagttt taagtgaaaa gttgaaaagt 60
aagtccgata aattaacatt caccatttgt tttttttaa taaaggtaaa aatcactaaa 120
ataaacagcc cactttaaca aaaaataggt gcaataaaac tataaaagag aaagcaaggg 180
agtgatgaac agaggttgta gggtgatgat acggaggata ctcgag 226

<210> 126
<211> 220
<212> DNA
<213> Homo sapiens

<400> 126
gaattcgcgg ccgcgtcgac gtttcaaagc cgtagacacc ttttattcag ggctggtaag 60
cttcactggt gtttttggtc tcctgctttt tttttttttt ttaaatctga ttacaatggt 120
gttgcacact gttgtggttt atcgtttttt agtgatcctg ttgctcaata accctccagt 180
gctctgctct gaaacagcac cagaacccca cccactcgag 220

<210> 127

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<211> 216
<212> DNA
<213> Homo sapiens

<400> 127
gaattcgcgg ccgcgtcgac tcgtccagta ccagtgccac gcagtttaaa tagtgatatt 60
tcctattttg gtgttggggg caagcaagct gtcttctttg ttggacaatc agccagaatg 120
ataagcaaac ctgcagattc ccaagatgtt cacgagcttg tgctttctaa agaagatttt 180
gagaagaagg agaaaaataa agaggcagct ctcgag                            216

<210> 128
<211> 180
<212> DNA
<213> Homo sapiens

<400> 128
gaattcgcgg ccgcgtcgac gcaaactagt aagtatgagg ttttcagctt caaatacaaa 60
accgtaatga tactagctga cattattgag tgcattcaga atactttagt ggacttttta 120
taagaattat taatatattc caaaggatta ggaatgttac ttttcatgtt ctccctcgag 180

<210> 129
<211> 204
<212> DNA
<213> Homo sapiens

<400> 129
gaattcgcgg ccgcgtcgac ttcctctcct ctctctcttg ccattttagc gtgcatgatt 60
tcattttttt tgttggcacc tgtaaggtgg tatctttttc ttgcccagcc ttgggttatg 120
gttacatctt cccattgctc attgcccacc ctccagttgg cacctctggt gcgctcctgg 180
ctgggtgaag ccgggcctct cgag                                         204

<210> 130
<211> 237
<212> DNA
<213> Homo sapiens

<400> 130
gaattcgcgg ccgcgtcgac ctgagggatg ctcatcttta acagtctccc tcatgtactt 60
ttgctgtttt acacagagaa acaggtagac cccacagagg agaaggaggg gattcaacag 120
ctttattgtc tggaagcagt gagatttggt gattgtctgg ggggattcct gggtttccct 180
gggtaccttg ttccaggcag tcagtccatt tgccttccta gtacaagccc cctcgag    237

<210> 131
<211> 250
<212> DNA
<213> Homo sapiens

<400> 131
gaattcgcgg ccgcgtcgac cttgtagata ccttttgaat ttaatgtcgt tagaattgct 60
tcttttttta atgctctatc taggtgaaag atatgatcct gagcccaaat caaaatggga 120
tgaggagtgg gataaaaaca agagtgcttt tccattcagt gataaattag gtgagctgag 180
tgataaaatt ggaagcacaa ttgatgacac catcagcaag ttccggagga aagatagaga 240
gactctcgag                                                         250

<210> 132
<211> 258
<212> DNA
<213> Homo sapiens

<400> 132
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gaattcgcgg ccgcgtcgac atttatttaa ataatatagt tccatatttt ttagtatatt 60
tacagagttg tgtaaccatt accacaatct aattttggaa cactgtcttg gctcctgaaa 120
gatcctgcaa accattagca gtcacttctc atttcctctt tccccagccc ctggcatcca 180
ctaatctact ttatgtctct atggatttgc ctactctggt tgtttcagat aacatttgga 240
ctttgtgaca gactcgag 258

<210> 133
<211> 139
<212> DNA
<213> Homo sapiens

<400> 133
gaattcgcgg ccgcgtcgac ctttcccaaa attcagaagt taatgggctt ttatgttttt 60
ctatattttt tttatttcaa tgatttggcc tgtctatgtt aggctaaaaa ataaccttgt 120
gtatgctacc aacctcgag 139

<210> 134
<211> 201
<212> DNA
<213> Homo sapiens

<400> 134
gaattcgcgg ccgcgtcgac ggagaagtaa gaattgtaag ggaggttcag tagtggggaa 60
ttctgtgaca gctgattgaa gatgatgatg aagaacctct gcattctagt taccctttgc 120
ttcccttcac ctcttgtaaa atttggcttg gcaacaatga cattgtcatg cttattgtcc 180
caatatccat ccaatctcga g 201

<210> 135
<211> 132
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (84)

<400> 135
gaattcgcgg ccgcgtcgac ctcgaggttg tctaagagga aaccaaaaaa gagctggaag 60
agaacaagcg atccctggct gcantggatg cactcaatac tgatgatgaa aatgatgagg 120
agggtcctcg ag 132

<210> 136
<211> 190
<212> DNA
<213> Homo sapiens

<400> 136
gaattcgcgg ccgcgtcgac agaagacata ctaatagaac tccttgcttt taattgggga 60
aatagggctt taataatttt gacctcaact aaaaatgata tgcaatagtc tctgtgtgtg 120
tttgaaatac attgtgttct cagagatttc tacattctca cgttctagtg atttggggca 180
tagactcgag 190

<210> 137
<211> 220
<212> DNA
<213> Homo sapiens

<400> 137
gaattcgcgg ccgcgtcgac atcacaatga gaccgttggc tttgaatttg agtcgttggt 60
tcccatggtg agatgcttgt taagacttta tacttgggtc aatctctcac tttattttgt 120

agaaccattt gaaatcctag gatgtgcttg ttctggaagg atgacatggg cccagactga 180
acaagtcagc ttgatgatct taaatgatgg gcaactcgag 220

<210> 138
<211> 156
<212> DNA
<213> Homo sapiens

<400> 138
gaattcgcgg ccgcgtcgac tgcatttttt ggtatattaa tcttgtatcc tgtaaccttg 60
ataatgcatt tattagttca tagtgttttt tgcttctttt gttcttttct ggtaaatgcc 120
ttaggatttt ctttttctcc cgactccccg ctcgag 156

<210> 139
<211> 239
<212> DNA
<213> Homo sapiens

<400> 139
gaattcgcgg ccgcgtcgac ctgaaaataa ggaaaatgtt agggacaaaa aaaagggcaa 60
catttttatt ggctctgtgg atgagcgcct ctgtttgctc ggacaaggcc gaaggaagca 120
gcagctctac tggctgcagg cttgacatcc gggtttctag ctctgaacga gaagcagagt 180
cctggaaact atcaaacaca acctcgcctg tggcaggctg cactcccaca atgctcgag 239

<210> 140
<211> 169
<212> DNA
<213> Homo sapiens

<400> 140
gaattcgcgg ccgcgtcgac cccgcctcaa cctcacgagt aagctgagac tgcaggctcc 60
accacaccca gcgaatttat ttatttttgt agagatgagg tttcaccttt ttgcccaggc 120
tggtctcaaa ctcctggcct caagtgatct gaccaccagc ggcctcgag 169

<210> 141
<211> 222
<212> DNA
<213> Homo sapiens

<400> 141
gaattcgcgg ccgcgtcgac aaaacgcctt atgatgaatc taagttctat attggctgtg 60
atctttgtac taactggtat catggagaat gtgttggcat cacagaaaag gaggctaaga 120
aaatggatgt gtacatctgt aatgattgta aacgggcaca agagggcagc agtgaggaat 180
tgtactgtat ctgcagaaca ccttatgatg agtcacctcg ag 222

<210> 142
<211> 198
<212> DNA
<213> Homo sapiens

<400> 142
gaattcgcgg ccgcgtcgac tgccaaattt tttaaatctc gaaattggtc ctaaaagaga 60
cttcatatat catctggttc aatgagagat ctttttactt tatttattat tttattttat 120
ttatttattt atttatttat ttttgagatt gtgccattcc actccagcct gggtgataaa 180
gctggactcc gactcgag 198

<210> 143
<211> 238
<212> DNA
<213> Homo sapiens

<400> 143
gaattcgcgg ccgcgtcgac tattcttgct ttgctggagg cagatctgaa ggatgtcatc 60
tctcctgtgg cttcttctag tgtggggtcc cgaagcctgg cttccccagc cgatgtgctg 120
ctttagtcag cgtctgccct ggtccttcgg ttcgcaggct cacacgcttt tttgggttgt 180
gtccctttgg actgcagagg ctacgtgtcc tgtgaccaac cacggaggcg gcctcgag 238

<210> 144
<211> 151
<212> DNA
<213> Homo sapiens

<400> 144
gaattcgcgg ccgcgtcgac ctaaagtcca gtgtttccag agacttttga aagtcaactt 60
acactttttc cttcttcatt cacaaagctc ttcttccctg ggccctggta tgtatgcctt 120
tctctcctac tgtctaatag cgagcctcga g 151

<210> 145
<211> 186
<212> DNA
<213> Homo sapiens

<400> 145
gaattcgcgg ccgcgtcgac caggatgttc tttctatccc attcatctac cttggtgttt 60
ctttgtcttg cctccttgct ctggtgtgct gagcaatatg gggcaccttc atttctgcag 120
tcagagggtt ggccactggg aatgagaaga accacctctg taccttggga tgctgtgtca 180
ctcgag 186

<210> 146
<211> 460
<212> DNA
<213> Homo sapiens

<400> 146
gaattcgcgg ccgcgtcgac gggtcctgaa gccctctgtc tacctgggag accagggacc 60
acaggcctta gggatacagg gggtcccctt ctgttaccac cccccaccct cctccaggac 120
accactaggt ggtgctggat gcttgttctt tggccagcca aggttcacgg cgattctccc 180
catgggatct tgagggacca agctgctggg attgggaagg agtttcaccc tgaccattgc 240
cctagccagg ttcccaggag gcctcaccat actccctttc agggccaggg ctccagcaag 300
cccagggcaa ggatcctgtg ctgctgtctg gttgagagcc tgccaccgtg tgtcgggagt 360
gtgggccagg ctgagtgcat aggtgacagg gccgtgagca tgggcctggg tgtgtgtgag 420
ctcaggccta ggtgcgcagt gtggagacag gattctcgag 460

<210> 147
<211> 244
<212> DNA
<213> Homo sapiens

<400> 147
gaattcgcgg ccgcgtcgac caccttccat ccattttccc agtccagaaa tttaggagtt 60
atctctgatt ccttctttat tcttaatccc attttccata cataatcaag cccctgggtc 120
agtcagttct tgctgcccaa gatttctcaa ttctgtctgt ttgccatatg tgaatcatat 180
gctactgtgt tacctttgca ttagtcttag tttttcattt aaatatattc agtgtgagct 240
cgag 244

<210> 148
<211> 165
<212> DNA
<213> Homo sapiens

<400> 148

gaattcgcgg ccgcgtcgac atttcatgaa cttaggatgt gttttttatt catgaaaaac 60
ttagaatagt gaactattaa tatttaaaaa cgagaaatac aacatttaaa aaattaagag 120
tattttgcat tagtgattat gattcttatc ccaaaattcc tcgag 165

<210> 149
<211> 252
<212> DNA
<213> Homo sapiens

<400> 149
gaattcgcgg ccgcgtcgac gaagcctcat tggagcagat tgctttaaaa tctttttcct 60
tctaatttca ggattggcat ctcctgtctt tttcctgctt cttggcattt tagcatatct 120
ccagtagggt gtcctcgaat tctgaatacc aatttacgcc aaattatggt cattagtgtc 180
ctggctgctg ctgtttcact tttatatttt tctgttgtca taatccgaaa taagtatggg 240
cgagatctcg ag 252

<210> 150
<211> 136
<212> DNA
<213> Homo sapiens

<400> 150
gaattcgcgg ccgcgtcgac agacattgtt ctttagccat tgtatcttta atagtctttt 60
aaacacattc atctctgggc taaaaatgcc ttttaaaaaa accaaaaaga gtacttttct 120
agaagcattg ctcgag 136

<210> 151
<211> 188
<212> DNA
<213> Homo sapiens

<400> 151
gaattcgcgg ccgcgtcgac cccaacctga agctgaagaa gccgccctgg ttgcacatgc 60
cgtcggccat gactgtgtat gctctggtgg tggtgtctta cttcctcatc accggaggaa 120
taatttatga tgttattgtt gaacctccaa gtgtcggttc tatgactgat gaacatggac 180
acctcgag 188

<210> 152
<211> 181
<212> DNA
<213> Homo sapiens

<400> 152
gaattcgcgg ccgcgtcgac atttttactg caagttaatg ctggaaaaac agggcaattt 60
ttcacagaga gaacatccta ataatatcag tttagtacaa aatagcggca tcttagtgaa 120
ccttgtattt ttcctttttg ttgcagttgt tgctagaaaa cataatcgga aggacctcga 180
g 181

<210> 153
<211> 251
<212> DNA
<213> Homo sapiens

<400> 153
gaattcgcgg ccgcgtcgac caaccctctg gcttagtaag ttgtggtttt tctgaccttt 60
ttaaagtttg agaggacatt ttatttatat taaccaattt atttgaattt cagtctcaga 120
agtattaaat attagttcat aagattgtta atctgctggg tcaggcaaat acagaagagt 180
ttttcacttt attcttgatt attttactta tgatcatttc caatttagtt ggggtaataa 240
cctgcctcga g 251

<210> 154
<211> 224
<212> DNA
<213> Homo sapiens

<400> 154
gaattcgcgg ccgcgtcgac atttgttgag ttttgaccac tgcgcctggc tcatattttc 60
tttatatatc aaaacaattc agcttgcttc acttttatga aagctttatt atgagtttga 120
aagcaattct gcattttctt aacattgtaa ctggtgttga gttgaaggca ggcccctggg 180
agccctttgt gggcaattcc cttcactctg gaggctgcct cgag 224

<210> 155
<211> 145
<212> DNA
<213> Homo sapiens

<400> 155
gaattcgcgg ccgcgtcgac cttgtcttat tcctgatttt agggtgctca ctcttagtct 60
tttgccatta tattgtttta tgttggtttt ccataacctc actatgctga atagcagttt 120
ggcactctgt ctggtcgctc tcgag 145

<210> 156
<211> 163
<212> DNA
<213> Homo sapiens

<400> 156
gaattcgcgg ccgcgtcgac cagctatttt attttaaaag ccaaaatatt tttaaactag 60
ttttaaattt tgacgctttg aatagataac acttttacat ggttcaaaaa taatataaag 120
agctatacat tgaaaaatgt tgcttccact cctgttcctc gag 163

<210> 157
<211> 197
<212> DNA
<213> Homo sapiens

<400> 157
gaattcgcgg ccgcgtcgac agagcttact gagttaattg ccaggagatg tatctaagtc 60
agaggttgga gttgctcctc tgtgttttgc tgggttcgtg cagagctgct tttgtaccag 120
gtttctacca cttggggtgc tttttgcttt tcttttcact tcccacatct caagcacctg 180
ctgcgggtca gctcgag 197

<210> 158
<211> 255
<212> DNA
<213> Homo sapiens

<400> 158
gaattcgcgg ccgcgtcgac ttaaaaattt gtgaagcgtc gcatattttt tcagttattt 60
tagtattaac aaacaaattg aagatcattg gtttatataa ccccctgaga gactaatagt 120
agaatagaac agaataatag aatagaatag aacagaatag aataatagaa tagaattata 180
ggtatgagcc gtggtgcctg gcctctaata gttttttttgt tgttgttgtt gttgtttttt 240
atggcttccc tcgag 255

<210> 159
<211> 150
<212> DNA
<213> Homo sapiens

<400> 159

gaattcgcgg ccgcgtcgac tggagtggga tggaatttag caaaggtaca tagaacaaca 60
gtgatcacat tgcttaagag tttctggttt tttttgtttt ttgttttttt tgagatggag 120
tcaggctctg tcgcccaggc tggactcgag 150

<210> 160
<211> 114
<212> DNA
<213> Homo sapiens

<400> 160
gaattcgcgg ccgcgtcgac cttattccaa cattttcttt aaaacaccag caaacgtatt 60
tgtgaatctc tcttatcctt gaaacttctt atgctgttga taaacttact cgag 114

<210> 161
<211> 166
<212> DNA
<213> Homo sapiens

<400> 161
gaattcgcgg ccgcgtcgac ctatgaatca cgatactacg atgatcctcg ggaatacagg 60
gattacagga atgatcctta tgaacaagat attagggaat atagttacag gcaaagggaa 120
cgagaaagag aacgtgaaag atttgagtct gaccagggac ctcgag 166

<210> 162
<211> 182
<212> DNA
<213> Homo sapiens

<400> 162
gaattcgcgg ccgcgtcgac attctttgtt accctttaca agtataagtg tttacaagta 60
taagtgttac cttacatgga aacgaagaaa caaaattcat aaatttaaat tcataaattt 120
agctgaaaga tactgattca atttgtatac agtgaatata aatgagacga cagcttctcg 180
ag 182

<210> 163
<211> 217
<212> DNA
<213> Homo sapiens

<400> 163
gaattcgcgg ccgcgtcgac ctttttctc tctctctttt aaataaacac aagcttcaaa 60
taagcacaca ataatgctgg gcaagcctac tgggatttgg gattctctag ttagttttct 120
ttgcctaact gagatatcta tttcatacta ctcttcattc cccaaatata tcattcccct 180
ctctacctcc cctcccagct gcccccacaa cctcgag 217

<210> 164
<211> 165
<212> DNA
<213> Homo sapiens

<400> 164
gaattcgcgg ccgcgtcgac gcacaatagc agtttctaag caatgaatga gaggacacgt 60
atgttggtga ctttgttgtt tctcttcatc cctccaataa ataaaaccga gagttttgtg 120
gacagggatt tattagagtt tcatcattta gttgacaggc tcgag 165

<210> 165
<211> 227
<212> DNA
<213> Homo sapiens

<400> 165
gaattcgcgg ccgcgtcgac tcgtgttaat aactttttgc tttgttggat tgtttcttta 60
ggatacattt ccagacatat acttagaaca tcaaaaacgt atggacatct ttttgatttc 120
tcatgtgtta tattatgtcg catgtgttat gttatatgta tatatatata tgtataacac 180
atatatatat gtcatgtgtt atattatgtg ggggggaaaa actcgag 227

<210> 166
<211> 211
<212> DNA
<213> Homo sapiens

<400> 166
gaattcggcc aaagaggcct agtttatgaa acttaccaga aaataaaagg accaatctaa 60
aataaagaat ctctattgta tttttctact gacaatgcaa atgcttatct taaaacatct 120
aatttttcc ccctttttcac aggcaagcac aactgtaaca cttccagaat ctcagttcct 180
tgccagttgt cattctgaag catccctcga g 211

<210> 167
<211> 218
<212> DNA
<213> Homo sapiens

<400> 167
gaattcggcc aaagaggcct agaattaaaa cccataatct atatcttagc taagatagga 60
aaaatttact aaaatatttt tttctggttg aatttcagat ttctcctata actctgcaca 120
ccagaaaaaa atctatagta caaatacaca tgaaattcca tcaactgttt catttttttt 180
taatttttct taatcttgtt cagggcatac atctcgag 218

<210> 168
<211> 238
<212> DNA
<213> Homo sapiens

<400> 168
gaattcggcc aaagaggcct aaagccaggt aaaaatttta aaaaagatga aatccttttct 60
ggcttctgcc agaggtcctg cattcttcat atctctgttc ctcatcagtc actgcaaagc 120
tgatcagaca gattggcatg gtgttcagca ttttgagttc cagactctgg cgatgggaga 180
taggtcattt ggaatttttc cctcatcccc tcctcaaaac caaatcagaa atctcgag 238

<210> 169
<211> 265
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (31)

<400> 169
gaattcggcc aaagaggcct aggttgatta natattttgg ctattgtgaa tagtgctgca 60
gtaaacgtga gggtgcccat atctctttga taaactgatt tcctttcctt tggatagata 120
cccagtagtg ggattgctgg atcatatggt agttctattt atagtttttc tttttttttt 180
gagacggagt cttgctctgt caaccaggct ggagtgcagt ggcatgatct cagctcactg 240
caacctccgc ctcccggggc tcgag 265

<210> 170
<211> 230
<212> DNA
<213> Homo sapiens

<400> 170
gaattcggcc aaagaggcct aggatattcc agcaaagtct ctaactgcag cctgtagaca 60
atttgctatt aaagattcag tgcacaaaat atagctaaca gcttttaaat ttttactttt 120
aaccagtctg gggatttgct tgcctggtga gtctcatatg ccatattatg aatatgaaaa 180
taatgaagtt aatttcctgt tgcctttctg tgtcagccac aaacctcgag 230

<210> 171
<211> 293
<212> DNA
<213> Homo sapiens

<400> 171
gaattcggcc aaagaggcct aggaatggct tgatggtgtc aggctatgct gtgactgggg 60
ctgtcctggg ccaagacagg ctgatcaact atgccaccaa tggtgccaag ttcctgaagc 120
ggcacatgtt tgatgtggcc agtggccgcc tgatgcggac ctgctacacc ggccctgggg 180
ggactgtgga gcacagcaac ccaccctgct ggggcttcct ggaggactac gccttcgtgg 240
tgcggggcct gctggacctg tatgaggcct cacaggagag tgcgtggctc gag 293
<210> 172
<211> 139
<212> DNA
<213> Homo sapiens

<400> 172
gaattcggcc aaagaggcct agggattttt tactagtgat ttaatgttac tacttgttat 60
tggtctgttc aggctttctc tcttcctgat tcaagctggg caggttgtat gtttccagga 120
atttaccatt tccctcgag 139

<210> 173
<211> 149
<212> DNA
<213> Homo sapiens

<400> 173
gaattcggcc aaagaggcct agtgagagtg acatcatgca ggaattactc gtattgaaca 60
cactttttct agatattctt ccaatccccg acgtcgggca tctaattgtt gttctgataa 120
tgaaaatggc cactcccccg ggactcgag 149

<210> 174
<211> 209
<212> DNA
<213> Homo sapiens

<400> 174
gaattcggcc aaagaggcct actcgaagtt cctcaaatac accaaagact ttcctggcct 60
aaataatttt tatgtatcta tttctgcatt ctcagctttt ctttttcctt ttatctaccc 120
aaccaaatct ttcaaggctt agtgaaaatg atttccttcc tgaggtcagt ccttgcccaa 180
aaagatccct cacatcctct aaactcgag 209

<210> 175
<211> 223
<212> DNA
<213> Homo sapiens

<400> 175
gaattcggcc aaagaggcct aatcatatta taactgatta gacaaaatgt ggcattattg 60
tttttatttc ttttgtgttt tacaaggtct cactctgttg cccaggctgg agtgcagttg 120
tatgatctcg gctcactgca gcctggacct cctaggctca agcaatcctc ccacctcggc 180
cccccacata gctgggacta caggtgcagg ctatcgactc gag 223

<210> 176

<211> 151
<212> DNA
<213> Homo sapiens

<400> 176
gaattcggcc aaagaggcct agtttcttga atgtaacatg acatttctca tttccatacc 60
ttcatttatg ttgtttattc ttggaatgct cttccttcat tttgatgctt cacacgctaa 120
tacacatcct tcaagaccca attcactcga g 151

<210> 177
<211> 327
<212> DNA
<213> Homo sapiens

<400> 177
gaattcggcc aaagaggcct aaacataatt agttgtttat atacttcctc tttaatccca 60
gagttcgatt tacaaaatat ttgattgctg ttttgtata ttatctcagt gctctaaaat 120
taccctagca aacgtgcagg aatgggtgta ggccccttaa ataaaaatgg aattagttat 180
gttgggtttt tttttttgc tgtttcactg ttacaattcc ccactgtcaa aggctcattc 240
cacaattttg tgggattagg gacaatggga tgtcatctct cagctggcta cttcttgccg 300
aacagggtca acgcggggca actcgag 327

<210> 178
<211> 500
<212> DNA
<213> Homo sapiens

<400> 178
gaattcggcc aaagaggcct agaggggcgc tgcgaggtat actgctctcc tctctgggat 60
ctgtgagtaa tacactacct ctgctatttc atgcacccct gctatttcac gttgcctcct 120
ctgtgtctca cctgcccagc acacctgaat ctacagtatt tcctggtcag ggcattccta 180
gagagtggct atcttggtag gaataaacca gaaacaggtc agacaagagc cccaagagtg 240
tctgtcaata taatcaagtc cttatgagag aggacatctg gtcacaggtg gacacttagg 300
cattaggcct tccaccagaa agaagtatcc caagaaaggc acactgcaga cagccacgac 360
cacctcccct gcatcagagc agggctagag tttatagcca ctttctagag agagctcaag 420
aactaattag aaagaaaaaa aaatacaaca cacttgtcca tgttaaaact gggatttgga 480
cccatgccat ctggctcgag 500

<210> 179
<211> 226
<212> DNA
<213> Homo sapiens

<400> 179
gaattcggcc aaagaggcct agttgagggg aggttggttt catggtttta cttttggttt 60
tttgaggact atgtttgttt ttatttttat tttttatttt tttatttttg agacagaatt 120
ttgctattgt tgcccaggct ggagtgcagt ggcacgatct cagctcactg caatctccgc 180
ctcccaggtt caaactattc tcctgcctca gcctcccaag ctcgag 226

<210> 180
<211> 272
<212> DNA
<213> Homo sapiens

<400> 180
gaattcggcc aaagaggcct aatgtggctc tttctccttt ttcacctatc tttgatttga 60
tgctcagaat atgttccttc tggtgccatg ttgacagcta agtttcccaa ggatatgcca 120
gctttcttta ggagttttct tcttctcatt cctaccatga tgtgagaatt gactgagctg 180
gtttcctcct atttgttgta cacattacta gtaaccatta cttataatta ttttagatga 240
tgctagcatc atttttactg ataaggctcg ag 272

<210> 181
<211> 210
<212> DNA
<213> Homo sapiens

<400> 181
gaattcggcc aaagaggcct aagaatgtgc atacatgttt tcatgagtgt cctttgggtg 60
ctgtttcttt taaatcctct gtgcacaggg ctctggcctt tagtaaactg tttttctgtc 120
ttacgtcatg ctgactgggt gctaggggct gattacaaag gggaagagtt gaacagacat 180
caggggccga tgaaactaaa tggactcgag 210

<210> 182
<211> 353
<212> DNA
<213> Homo sapiens

<400> 182
gaattcggcc aaagaggcct acgttctgca agtactagtt aatacaataa aactagagag 60
agaaagaggt aattcaaagg caggaggtaa aatgatcact acttgcacaa tgagtgtata 120
cctgaagaaa cccaagggaa tccactgaaa aactactatc aacatgaaga gagtttcaga 180
aaagatgaca gctgggtaca aaattaacac agagaaccca ataggtatca catataaacc 240
aacaactagt gagaagatac aatggaagaa atggccttat tttcaaaagg aacaaaaagt 300
taaaatatta taagtcaatt tcacaggaaa tgtctaaaac tcccagactc gag 353

<210> 183
<211> 198
<212> DNA
<213> Homo sapiens

<400> 183
gaattcggcc aaagaggcct aaagacatca aggcattcaa tgcataccgt tttggttttt 60
attttctcct gtcctttgct ttctggattt tcatctcatg taaagcatgt gggggtttta 120
tttttatatt tttgtgtgtg tgtgcagtgt ctgccccaag caagtctctt gggaggagga 180
ggcggcagca cactcgag 198

<210> 184
<211> 216
<212> DNA
<213> Homo sapiens

<400> 184
gaattcggcc aaagaggcct attttaattc tatttttcat ttgagctgac ttgtagccac 60
ttcagactat caatggaatc ttatgttgag cctttctctg gctttccttc ctccactatc 120
tctccaactt tagagatcat cccctctccc tccagtgcgt tctatctccc ccacacccac 180
cctagatact ccctttttcac ccacctcctc ctcgag 216

<210> 185
<211> 208
<212> DNA
<213> Homo sapiens

<400> 185
gaattcggcc aaagaggcct aaaggctgaa tatgaggaaa aattcctggt acaaggtcat 60
actaagcatt ttagttccac ctgccatatt gctgttagag tataaaacta aggctgaaat 120
gtcccatatc ccacaatctc aagatgctca tcagatgaca atggatgaca gcgaaaacaa 180
ctttcagaac ataacagaag agctcgag 208

<210> 186
<211> 184
<212> DNA

<213> Homo sapiens

<400> 186
gaattcggcc aaagaggcct aatttctcat cacccaaggc tgcaaatctt ttcaaatgtt 60
atatttcata ttgtggttac tgtctccaaa tatcttctct ttccttctcc ttcaattgcc 120
ttgcagctgg caagtctctg gagtccctgt cccctgccat tgcccactga acagacatct 180
cgag 184

<210> 187
<211> 239
<212> DNA
<213> Homo sapiens

<400> 187
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aaaaatacat gctgtttaga atatctgata ggtgtttcca gctactatta gaggtgatag 120
tgcttttgtg ggggaaaaaa ttggtcatgg tgaatggaga tcgaggaagc tcgggacaag 180
ggaggggtgg gctgcctgat tttgtccagt tttccaaata tccacgcaat gaactcgag 239

<210> 188
<211> 216
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (151)

<400> 188
gaattcggcc aaagaggcct agtgtgtgtg tgtgtgtgtg tgtctaattc aaattataca 60
caaggagttt gtgcaggctt tctttagagg cagaagccag ttaggcaggt caagaataat 120
ataaaatcac aaatgaagag aataatgtgt ntatttttca tttgtcattt aggactgtct 180
gggggagact gtcctctctt gggcggaaga ctcgag 216

<210> 189
<211> 303
<212> DNA
<213> Homo sapiens

<400> 189
gaattcggcc aaagaggcct acaatcttta gcttccatag tgtcacacac tattaaattt 60
ttctcttcct cattagctgc acctactcat tctctttgtt ggttcctcct catcttcttg 120
acaacttttg cagctgcctc catggcattt ccacttggtt atctattaat aatatttatc 180
ctaatgtgtt cagaagcaaa tttctgttcc attctacctc ccaattctgc tccaccttca 240
gtcttaccca gttcgattaa agacaactct attcttccac ttgcccagac caaaaacctc 300
gag 303

<210> 190
<211> 209
<212> DNA
<213> Homo sapiens

<400> 190
gaattcggcc aaagaggcct atgagaatcc acgcgagacg gagccctcct cgccggccgg 60
cctggacgct tgggatctgg ttcctgttcc ggggatgtat cgtcagctct gtatggagtt 120
cttctaatgt agcttcctcc tcctccacct cttcctcgcc ggggtctcac tctcagcacg 180
agcaccattt ccatggcaac acactcgag 209

<210> 191
<211> 195

<212> DNA
<213> Homo sapiens

<400> 191
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gctttttgtt tgcacaaact cggtcccctt ctgtttctct acgatgtttt gatgcagcat 120
gaggcagtca tgagaaccca ccagatacag ctgcctgatc ctgaatttcc cagccaacag 180
aaccaaatgc tcgag 195

<210> 192
<211> 215
<212> DNA
<213> Homo sapiens

<400> 192
gaattcggcc aaagaggcct agaaagccct gaccctagat tggctgaatc tgaatctgca 60
ttttaacaag atctctagga ataaatatgc acaataaagt tttaggtgca tggctctgtg 120
ccatgctgcc tgtttctgac acaaatgaaa gaaaatcagc tattgaagga agcaggtctc 180
tagatctgac agtccatgtg tcttcttccc tcgag 215

<210> 193
<211> 275
<212> DNA
<213> Homo sapiens

<400> 193
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gcctcccaag tagctgggac tacatgccct tgcctctgct ttgttttcca ttattttctc 120
acatgtcagg cttcattata tgtttcacag tctttattat tatttacctt cctcagctag 180
aatgtgagtc cacaaggata ggtctgaact cttttactca cagcatttct gacccccaaa 240
tatgtgtctt ttgtcctcat accaaccaac tcgag 275

<210> 194
<211> 282
<212> DNA
<213> Homo sapiens

<400> 194
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ctttttaaaa aataaatcgc tgacaagtgt gaatcccgtg aagactttat tttgtgttgt 120
gtgtatcctg tacagcaagg ttggtccttc gtaacaacgg atgaaatggt tcccttttt 180
aaagcgccct ctctccctcc accctcagcg cccctgtcct tggcatgttt tgtatcagcg 240
atcattctga actgtacata tttatgtagc gagaggctcg ag 282

<210> 195
<211> 132
<212> DNA
<213> Homo sapiens

<400> 195
gaattcggcc aaagaggcct agcttgccca ttttgcttgc caatgttcca tctttcgggt 60
tctgatttaa tgcttgctca tatgctacta tggcttcttc aggctctaga atattcatgt 120
atgcatctcg ag 132

<210> 196
<211> 224
<212> DNA
<213> Homo sapiens

<400> 196

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gacatgacga agggccttgt tttaggaatc tattccaaag aaaaagaaga tgatgtgcca 120
cagttcacaa gtgcaggaga gaattttgat aaattgttag ctggaaagct gagagagact 180
ttgaacatat ctggaccacc tctgaaggca gggtaggact cgag 224

<210> 197
<211> 169
<212> DNA
<213> Homo sapiens

<400> 197
gaattcggcc aagaggccta agtgaaacta agtaactact gtcagtcaca tttactcctt 60
agcactttgg agtaaactgt ggtttgattt tattttgaca gggttaacaa acttggacat 120
acacacacat acataaacac tcatgcaaat caacttaaaa atactcgag 169

<210> 198
<211> 209
<212> DNA
<213> Homo sapiens

<400> 198
gaattcggcc aaagaggcct actcaaaaga aggaggaaaa acaaggtcct gaaagtgctt 60
atatttcatt agggaggtgg agaaaaaagg gacaaaaaag tgactgagaa gtaataatta 120
acaatcagaa agacactaga gttcatcctg ggagccacgg agggacaagt ttcaaacttg 180
agaagatgaa gactgcagca gttctcgag 209

<210> 199
<211> 306
<212> DNA
<213> Homo sapiens

<400> 199
gaattcggcc aaagaggcct accgtctcaa aaaataaata aataaatagt ctattgccta 60
agaataatat cctattcctc atttctcctc tttacacatt acacacccca ctaactgtgt 120
gttctagatt cacgcatctt tgtacctatg catatgctgt tctctctgtc tgaaatgtct 180
ttcctcttcc ccctcatctg tcagattcca aaagtccttc tgactgggct cagatgtgat 240
tcttcccgga gaccttctcc caatcttccc caagttgcag tcatctcttc acactgggaa 300
ctcgag 306

<210> 200
<211> 176
<212> DNA
<213> Homo sapiens

<400> 200
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atgcagtctg ctacatgatg gtatccttaa ttttcttcat tggatttttg cttgaagatc 120
gagtagcctg caatgcatcc atccctgcac aatataaggc ttccacagat ctcgag 176

<210> 201
<211> 198
<212> DNA
<213> Homo sapiens

<400> 201
gaattcggca aagaggccta atcttttctt agcactgctc tctcatacat atcagggtgc 60
aaatattctt ctgtgccata cagagaaaca aactgctcat catcttctaa ttctctagct 120
gcaccaaaat ctgtgagttt gtacacagac tgtccatctt cccctataac acgcatgata 180
tttcctggct tgctcgag 198

<210> 202
<211> 471
<212> DNA
<213> Homo sapiens

<400> 202
gaattcggcc aaagaggcct agtttagata tatatctagt tcaagccaaa ttagtctggg 60
attagtaagg tttttgttaa cctaactttc gaattactgt ggctttaaat ctaatctttg 120
actttttccc caaaatctta ttgcattcag agtttctcat tttagattag cttgcatagt 180
aataaattat agaagtgaag gttgcactta ataagcctgt gcttattttt ccatttgagg 240
tgcatatatc acataaggtg gtattagtgc tcttttgttt tgaagctagt ggccatgttg 300
tatctgtctc tagtggtttc aagcctagca tctttttgtt ttgttttgtt ttgttttgtt 360
gagacaagtt ctcgctctgt tgcccgggct ggagtgcatt ggcacggtca taactcactg 420
cagcctcaaa ctcctggacc caagatatcc taccacctca gctccctcga g 471

<210> 203
<211> 261
<212> DNA
<213> Homo sapiens

<400> 203
gaattcggcc aaagaggcct atactggctg aaatcctgtc tcaaaaggaa gtgagtcatg 60
aagaccagac catgttttta ttttattttt ttatttattt attattattt tttgagatgg 120
agtcttgctg tgtcacccag gttggagtgc ggtggcccga tctctgctca ctgcaggctc 180
cacctcccgg gttcacgcca ttctcctgcc tcagcctccc aagcagttgg gactgcaggt 240
gcccaccacc acacgctcga g 261

<210> 204
<211> 211
<212> DNA
<213> Homo sapiens

<400> 204
gaattcggcc aaagaggcct agttttgcta agattgcatt ggttatgaaa aactgcagga 60
acatttagaa gtagattaag agaaaatgag aaatgggatt tttctttttc taatctcttt 120
ttttttggag acacactctt gctctgtcac ccaggcagga gtgcagtggc actgtctagg 180
cccactgcaa cctccacctc ccaggctcga g 211

<210> 205
<211> 223
<212> DNA
<213> Homo sapiens

<400> 205
gaattcggcc aaagaggcct atgtattttt catgatgtta ccttccttgg tgttttcttt 60
gcacggattc acacacgttt tttacttaga acttgcattt tcacctgctt ggacaggagc 120
ctgcttggag cacagtcatt ctttgagcac tgtcacccca ttcttcaggg tcccagccat 180
gcttggccat cacctgattc cccgtagccc cggaagtctc gag 223

<210> 206
<211> 231
<212> DNA
<213> Homo sapiens

<400> 206
gaattcggcc aaagaggcct aaccctggct gccctacaca tgctcttcct gctctatctg 60
cattttgcct accacaaagt ggtagagggg atcctggaca cactggaggg ccccaacatc 120
ccgcccatcc agagggtccc cagagacatc cctgccatgc tccctgctgc tcggcttccc 180
accaccgtcc tcaacgccac agccaaagct gttgcggtga ccccgctcga g 231

<210> 207
<211> 227
<212> DNA
<213> Homo sapiens

<400> 207
gaattcggcc aaagaggcct atacagagat actctagccc actcttgcaa caatattacc 60
aaggtgcatt tccagtaatg ccagttaaga gcttctatgg agacgttacc caacatataa 120
cagttgatta tagcatttgg aaaatatgcc tgagggaaaa aataatttat ttatcgtcac 180
tattattatt ttgccttttc taccatctgc tacaggccag actcgag 227

<210> 208
<211> 211
<212> DNA
<213> Homo sapiens

<400> 208
gaattcggcc aaagaggcct agtttgattt ttttgttaat aagggacctt ctcaaagata 60
cttttaaatg aaaagacaaa gggtcagaaa atactggttt ttttttttt ggacagtctc 120
attctgtgac ccagactgga gtgcaatggc gttgatcttg gctcacagtg acctccgctt 180
cctgggtcca agtgatgccc cctatctcga g 211

<210> 209
<211> 152
<212> DNA
<213> Homo sapiens

<400> 209
gaattcgcgg ccggtcgacc acgtacgtta ccataccaca gatttatttt gtaaatacag 60
agaacaatta cactaacatt ctgtttaata taattgttct tctttgcaat atttttgtat 120
tttacattat gcatttaaaa agttatctcg ag 152

<210> 210
<211> 249
<212> DNA
<213> Homo sapiens

<400> 210
gaattcggca aagaggccta gcccaaatca atgtggtttc tttggaacat tttcagcaaa 60
ggaacgcata tgctgcagtg tctttgtggc aagagtctta agaaaaacaa gaacccaact 120
ggtaagcgaa acatgcatca tgttatgttt ttcctcataa taacctgtct gttgctcatc 180
gagctagatc tgcagttctg ctatgcagga aggcagggga aacataccag gaaccaggac 240
aaactcgag 249

<210> 211
<211> 217
<212> DNA
<213> Homo sapiens

<400> 211
gaattcggcc aaagaggcct actcgacaac tgcactgtaa gaatttcttc tgtgtatttt 60
ctaattctgt gacaacaggc atcaacaaaa catgtggcct gttatcacat ggttcctccc 120
tgtgtgcacc ttcatagaga ttttttcctt ttctaaaaga atgaggattc ctctgaatgt 180
tacactatgc aacaataatg tccccaatcc actcgag 217

<210> 212
<211> 191
<212> DNA
<213> Homo sapiens

<400> 212
gaattcggcc aaagaggcct agtcgattga attctagacc tgcctgagct tcctgtttta 60
agtacactat tagtaggaga atggtatcca taaagttgaa gacgcagcat tgcacgcttt 120
tcttcatctc ctttaatttc tctcttttca tttttttcc tgaatatctc ttgaagcacc 180
aaaaactcga g 191

<210> 213
<211> 272
<212> DNA
<213> Homo sapiens

<400> 213
gaattcggcc aaagaggcct aagcaaaaca cagaaagata aataataact taggtcaaac 60
ctttccttct cattgggtcc atttgcctgt tataaattat tagttaagtc caaagtattt 120
tgtataatca attctgtata ataccagaat tcaccttata aattatagtg atttttaaac 180
atttattctg gactccccat aagttttgag atataaaaat acactgaaat tagaacataa 240
ataacatgaa tttagtaaca ctcatgctcg ag 272

<210> 214
<211> 207
<212> DNA
<213> Homo sapiens

<400> 214
gaattcggcc aaagaggcct aattaaagct tatactttga aaattaggca agtcttttgt 60
tttggtgtca gtatttcttg tcattcttga ttttttgtg aaagattgga gagcaaaagt 120
ggtatgaaca gttgtcaatt ctgtaccata gtaagcactg tgatgctatt tcattttgtt 180
tttacaagtg aaacaggagg actcgag 207

<210> 215
<211> 231
<212> DNA
<213> Homo sapiens

<400> 215
gaattcggcc aaagaggcct agcagagtca agttatacag tctaataact agaaatttct 60
aggtacttct cgcagagaat gaaagtggga aggagttttc taacactggg gctttctttc 120
ccttgtcttt acaaaagaca aagcctaggc agtcagtcag tagcactaga gtattcctta 180
tgggcattaa gaatttctcc tgtttcctgc ctcaatcccc cttccctcga g 231

<210> 216
<211> 159
<212> DNA
<213> Homo sapiens

<400> 216
gaattcggcc aaagaggcct aattgaattc tagacctgcc tactattttt gtgaagaatg 60
gtattgatta ttgctaatat tctttttac attcgccatc ttggtgggtt agagaatatt 120
ctgctgccat gctaccatct accctccacc ccactcgag 159

<210> 217
<211> 216
<212> DNA
<213> Homo sapiens

<400> 217
gaattcggcc aaagaggcct acttagttca ttccgatttt tcaagttact atacttatgt 60
aaaaaattac ccccaatttt agtgactttt acagaatcaa aaaatactta tatgcttatg 120
aatctgcagt ttaggcaggg cttggtgggc ctagctcatc tttgctttct gtggggtcac 180
ctgggctgct tgatagtggg agcggacaac ctcgag 216

<210> 218
<211> 213
<212> DNA
<213> Homo sapiens

<400> 218
gaattcggcc aaagaggcct aatttgttcc aatctggccc tttttttttc ttccttcatt 60
ttctctcccc ctcttgttct ctctttttca aaaatgtttt ataattcctg gaatcaaaac 120
cacttcaggc acacactgtt ttattttact gtattattgg attataccgc ctataaatca 180
ctggatgtta ctcattggcc accgacactc gag 213

<210> 219
<211> 196
<212> DNA
<213> Homo sapiens

<400> 219
gaattcggcc aaagaggcct agattgaaat ggtttgccat ctgcttcgta tgtggcgttt 60
tcttttctat tcttggaact ggattgctgt ggcttccggg cggcataaag ctttttgcag 120
tgttttatac cctcggcaat cttgctgcgt tagccagtac atgcttttta atgggacctg 180
tgaagcaact ctcgag 196
<210> 220
<211> 438
<212> DNA
<213> Homo sapiens

<400> 220
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cctccaggcc ttaatggatt ctgcaggtga cttgctctcc cctgctatct cagcctccag 120
agtagcctgc ttctctcgca ggcgcttctg tttggcttca cggttcctcc gggagatggg 180
agatccatgg ggctccgact gtgtagaaac ggagtgaaac ctggggaggc cccgtgagtg 240
cctcagcccc caaaatggtg gtcgaaaaga agcgagaggc aaatgaggca tcaggagtgt 300
ttggaaaggg gccgagatct gttcaggagg ccccgccgct atcccagggc gccccgcggc 360
ggcagggact gaggaatcca ccaaacccga ccctggaacg tgcctaaacc gtcgattgaa 420
ttctagacct gcctcgag 438

<210> 221
<211> 193
<212> DNA
<213> Homo sapiens

<400> 221
gaattcggcc aaagaggcct aggcaaataa aatgctcctc ctcctaaagg ctgttaacac 60
aaatcaaaga aactcccctt cttttctttc tataatatgt ttttccttat tgttaattcc 120
tgcatgtggt agcaggagtt tagggactgt gggcagcaga agaattaggg cgagggcagg 180
gggtccactc gag 193

<210> 222
<211> 171
<212> DNA
<213> Homo sapiens

<400> 222
gaattcggcc aaagaggcct aatttaacgt cggtagttct gctttattaa aatgcagcag 60
aggtactctt ctgtcccttc cgtttatagt tctctgagag agttctattt tttggttttg 120
ttttgtgttt tcttttgcat tttgtatctt gtatttatcc ctgatctcga g 171

<210> 223
<211> 254
<212> DNA

<213> Homo sapiens

<400> 223
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ttccccaagt aattaaggct ttagagaagt aaaagtcagt tcctcaaaat ctattagatt 120
gggttagaaa atcctatatt ggacaatctc tattagatga ctaatattat taatctattt 180
tagaaaaccc tatcttttac aaactctgaa gtatttttca actacaaaat tccatcatga 240
agattttact cgag 254

<210> 224
<211> 249
<212> DNA
<213> Homo sapiens

<400> 224
gaattcggcc aaagaggcct agaactgcat ctagactaca cggattttac ccaaaaagac 60
agcacttgca cttaggctaa gtgtctttct ccatcgtaac caatttattg aatcacttta 120
agagtgatca ttggggaaat tttcctcctc agccttattt tggccttttg aaacagcaac 180
aaagactgcc tagtcaaata actccttagc tgattttacc ctcaaatgcg ttttcgtact 240
ttcctcgag 249

<210> 225
<211> 269
<212> DNA
<213> Homo sapiens

<400> 225
gaattcggcc aaagaggcct agcaggataa agcttaaaca catctcttgt ccattcaaga 60
ccctggggca tctgtttttg ccagcagctc ctcacaggtt ccattccatc aaagctggtt 120
cagttattta ccctgtccca gaggccatgt tttgcctgtt gtcacttggt atgcttctct 180
tatgcaataa tattttgtat gaaggtttct cccaggcact gtgcttggaa tcttacacca 240
tatttaatct tcacagcacc agactcgag 269

<210> 226
<211> 211
<212> DNA
<213> Homo sapiens

<400> 226
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cattactgta taaatttttc ccagaggaga aaatttaatt tttccttata tttccaggat 120
tatgcgttgt tcatatatat atatattttt ttctacattt atttttcttt cttttttttaa 180
cttttgtttt aggtttggtg gtactctcga g 211

<210> 227
<211> 215
<212> DNA
<213> Homo sapiens

<400> 227
gaattcggcc aaagaggcct acatgttttt tcatgctttt cttttcctct acctgcaaca 60
tcctccacat tcttcttctc cagggtcact cctatgcatt cattgcttct actgccatct 120
ccttcaagac aacttgtccc tggaaaccaa atcacccttc tctctgctcc cacaggaccc 180
tgtgcacatt tatatccgag tactcaggtc tcgag 215

<210> 228
<211> 237
<212> DNA
<213> Homo sapiens

<400> 228
gaattcggcc aaagaggcct agccagtgag aaaggagctt accaaaggca gtgtacgaag 60
aaggttcctg ggagactgtc agaaatgagt ttttcactga acttcaccct gccggcgaac 120
acaagcaacc aaccattttg ctttgcctgg tgttgtctgt ttttagcact gaaagtcctg 180
ggcagctctc tggacaatgc ggatgacgtc ctctcctgtc acaggtggga tctcgag 237

<210> 229
<211> 101
<212> DNA
<213> Homo sapiens

<400> 229
gaattcggcc aaagaggcct agtttgtgtg cagggataat gttatctgtc ttaggaggca 60
atggggtcaa tctggttact tggttgaccc cactgctcga g 101

<210> 230
<211> 235
<212> DNA
<213> Homo sapiens

<400> 230
gaattcggcc aaagaggcct actaaaattc ttatagtctt aataataaag agttagcttt 60
attatattga gttaagggaa gaggaatctt ttaaaattct gagtggtgag agaaatatat 120
atgaattttt tttttacac aaatgagttt tcattggtca tgtttctttt tatttcttct 180
gtgtaggtgt aattgttatc tattgctgca gaacaaatta ccacataaac tcgag 235

<210> 231
<211> 344
<212> DNA
<213> Homo sapiens

<400> 231
gaattcggcc aaagaggcct aatatgttag tcaggtttgc actgagtctt cttccaatcc 60
ttcagcctgg acaacagagt gaggtcccct tgtggccaga ggccagccct ccttgcctgc 120
cttcctttga cctctctttt ccatccatga agccctcagg cccttgccat tttttcacca 180
cagaaaactc atggcttctc cagaagcctg agtatctctc tttcccagca caaatggcag 240
catctctatc ctgccccatc tgggccactt cagcttcctg tagacaccca agacagatgg 300
acagtgttgg agggaatcag gctttgagga tccagagtct cgag 344

<210> 232
<211> 323
<212> DNA
<213> Homo sapiens

<400> 232
gaattcggcc aaagaggcct atctttaaca catttttgga tttgatttgt taatattttt 60
agtgttgagg atttttacat ctgcttatga gaaatacttt attggtctat aatttcttcc 120
agtatctttg taattttttt ttaagagatg ggtcttgct ttgttgccca ggctggagta 180
caatgtgcaa tcataggtct ctgcagcctt gtattcctgg actcaagcaa tcctcctgcc 240
tcagcctctt gggtagctgg gactacaggt atataccacc atgcccagct tctttgtgtg 300
gttttagtga cagagatctc gag 323

<210> 233
<211> 478
<212> DNA
<213> Homo sapiens

<400> 233
gaattcggcc aaagaggcct accctgatcc ccttctcaga acagcacagt gtccccacca 60
agtgctaata aatgttgttg gataacagaa caatttggtt taaatctcct ctcacagagc 120

agaatcgcct ggagggattt tgccttgaaa attaaattct gatatcaatt tctaaaatta 180
tttacaatat taaagttgaa atgaatccat cacacagttt ccttccaatg ttagtctttc 240
aagtgaacct actttcctat tagcagtcac ctaaaaacaa ataagcaaac aaacaggtaa 300
ctcagtcttc cctctgactc agtgtgagga aagggacagg cagcatctgg tgacagctta 360
cttcagtggg tctccatggt tcttcaccaa aaccacttgt gtttcctctt caagcaccac 420
agtatcctat gacactaggc cagtgggctc tcaaactttt ggaattcagg aactcgag 478

<210> 234
<211> 119
<212> DNA
<213> Homo sapiens

<400> 234
gaattcggcc aaagaggcct atctagacct gggtaagtta cagaggcaaa taaaaccagc 60
aattataaca aaatatatga agtatgatgg tagagatata tattatacgg gctctcgag 119

<210> 235
<211> 253
<212> DNA
<213> Homo sapiens

<400> 235
gaattcgcca aagaggccta gaggaatctt gtcttttgta catgtttgtt tgtgacatat 60
tagatctgtt tgattcctct gttttagttt tgaaatgtgc atgttatccc agctttccat 120
tatttggttg tcctttaagt gtgcctctga tatgttgcac ttatggagag gtcacacctt 180
gccagctgcg cttaccttac ctatacttgc caacctaggg gtctgctact gtcaaacaca 240
gcatcaactc gag 253

<210> 236
<211> 244
<212> DNA
<213> Homo sapiens

<400> 236
gaattcggcc aaagaggcct aaaggaatgc tttcacaata gtgtatcagt tcttttgttt 60
tgttaaagtt ggaatttatt ctgttgccag catttaagta gtcatggcaa gtcctgtttt 120
taagaccttt tggagactgg agctttctgt tccattaagt cttttgttta tactacaaat 180
tgtcacctca cttagttcag atgaaatctg ttactctaca aggaaggtgt tcatcaatct 240
cgag 244

<210> 237
<211> 171
<212> DNA
<213> Homo sapiens

<400> 237
gaattcggcc aaagaggcct actttgggat tggatgatac agcttttgct tctgtgtagt 60
atacctgtac atacttgttt caggcagcct ttctttaatg ttttcagttg gtttgtattc 120
tgtagctcag tagctgctaa taaagttaaa gatcctgtgt ccagtctcga g 171

<210> 238
<211> 200
<212> DNA
<213> Homo sapiens

<400> 238
gaattcggcc aaagaggcct ataccagtgc attaatttgg gcaaggaaag tgtcataatt 60
tgatactgta tctgttttcc ttcaaagtat agagcttttg gggaaggaaa gtattgaact 120
gggggttggt ctggcctact gggctgacat taactacaat tatgggaaat gcaaaagttg 180
tttggatatg gctcctcgag 200

<210> 239
<211> 238
<212> DNA
<213> Homo sapiens

<400> 239
gaattcggcc aaagaggcct agttgggaca atagtaaacg gacatggcac actggtgggc 60
atgtcttatg aaaagctgct tttgcccctt ccctgtttta tctagtcctc attttggtct 120
ggtgtctgag cccagctcca gagtccagcc ccgcctccca cctcgaaggg agggacaagt 180
tcctgctggc ctctttgata agggcactaa tcctattcat gaggatggag ccctcgag 238

<210> 240
<211> 250
<212> DNA
<213> Homo sapiens

<400> 240
gaattcggcc aaagaggcct ataggcctct ttggccgaat tcggccaaag aggcctagtc 60
agattatgat aagtgctgtt gattaaaata aagcagggaa agagaatagg aaattctagg 120
ctaggttgag ggttgtaat ttaaaataac atagtcagag aagtcatgaa ggaaaaatac 180
ctgagacagg ttgttttgca cagatttatg gaaaaagtgt cccaggcaga aggaatgcaa 240
ggctctcgag 250

<210> 241
<211> 223
<212> DNA
<213> Homo sapiens

<400> 241
gaattcggcc aaagaggcct aataactgtc aagtggactg gatacactaa ccagtatatt 60
ccaccttagg caatctctgt gtaaagtgag tttactagat tatttagtga ctgtactgta 120
gctgaaatag aacgcaatgt tgccaaatag aaaaatactt ttactgggac tgaagataat 180
ttttttttg aggcggagtc tcgctctgtc gccaaacctc gag 223

<210> 242
<211> 240
<212> DNA
<213> Homo sapiens

<400> 242
gaattcggcc aaagaggcct ataaagttgt atttcactg aaatgattgt tttgctggtt 60
atgcttggtg atattttagc gggcttattt ttgaaaggca tctgttactt cagtggcata 120
aagtgccctc acactgctgt gcagccatca ccaccattca tctccagaat ttgttctcag 180
tcccaaactg aaactatacc attcaaacaa cagcgctccc catttcccca tcccctcgag 240

<210> 243
<211> 268
<212> DNA
<213> Homo sapiens

<400> 243
gaattcggcc aaagaggcct agtctgggac tttcaaatct tcagaagagc caaatccagg 60
ggaagtagca ggcttgcaat cttcaggtaa agaagcagct ttgaatctga gcttcatatc 120
gaaagaagag atgaaaaata ccagttggat tagaaagaac tggcttcttg tagctgggat 180
atctttcata ggtgtccatc ttggaacata ctttttgcag aggtctgcaa agcagtctgt 240
aaaatttcag tctcaaagca aactcgag 268

<210> 244
<211> 190
<212> DNA

<213> Homo sapiens

<400> 244
gaattcggcc aaagaggcct accaaactat aactgtcctg cctttcttta ctggtaatat 60
gatttccaat gtcgtacttt ttcatgattc ctatcctaaa agtgtgcata agttttattt 120
gtttttacc atttgttttt tgttttgttt tgttttttta cctagagaag tgaaaggggc 180
accсctcgag 190

<210> 245
<211> 286
<212> DNA
<213> Homo sapiens

<400> 245
gaattcggcc aaagaggcct actagatttt tctttcaaat aaaattttta ttcaaaattt 60
ttagatacag aacaatatta tattctaatt gggcttgctt taaatttgta aataaacata 120
aagggttgac aactttgtga tattggaact ctgcaactaa gtacataata tgtatttcca 180
tttgtccaga tctacttttg tgtcttttgg aagtgtttta tggtttactt catgtatgat 240
cctcatgtat atttattatg tttctgtttt aatacgttca ctcgag 286

<210> 246
<211> 222
<212> DNA
<213> Homo sapiens

<400> 246
gaattcggcc aaagaggcct attagaaacc actttcctgg tgaagctgaa acattatata 60
attcccttga gccatcttat cagaagagtc ttcaaactta cttaaagagt tctggcagtg 120
tagcatctct tccacaatca gacaggtcct catccagctc acaggaaagt ctcaagtaag 180
gtcatataaa taatgattac tagtctcttc ctcatcctcg ag 222

<210> 247
<211> 254
<212> DNA
<213> Homo sapiens

<400> 247
gaattcggcc aaagaggcct actttagtct gaaccgggat cttacaggag aattagagta 60
tgctacaaaa atttctcgtt tttcaaatgt ctatcatctc tcaattcata tttcaaaaaa 120
acttcggagc agatacgaca aaggtctttt atattggcct gagaggagag tggactgagc 180
ttcgccgaca cgaggtgacc atctgcaatt acgaagcatc tgccaaccca gcagaccata 240
gggtcctact cgag 254

<210> 248
<211> 264
<212> DNA
<213> Homo sapiens

<400> 248
gaattcggcc aaagaggcct aatttaagga atggtgacta ctgaggagaa ttgcagtctt 60
gaatacttag catattcttc attcattaaa cttttattaa gtgcctgtgc tgtgctagtc 120
actgccaggc agctgcctga tacatggttc ctcctgcctg ggagctccca gtctgagaca 180
gaaaggtcaa cagttctaat ggcaggagtt aagtgccatg agagcatatg ggaggggcag 240
ccttacagcc aggataagct cgag 264

<210> 249
<211> 263
<212> DNA
<213> Homo sapiens

<400> 249
gaattcggcc aaagaggcct acgattgaat tctagacctt cctctctcat cttttgctct 60
cctcttaggt tttctcctta ttttccatag caagagtgtg cagagttttg attggtgaga 120
tttaccattt gatatactca cataagttca ggtttcagaa tatctataaa tttatgatta 180
accaaggttt gttatatata attcacttgg catattgtga ctgtttattc tatccctaca 240
ctggggtagc accccagctc gag 263

<210> 250
<211> 113
<212> DNA
<213> Homo sapiens

<400> 250
gaattcggcc aaagaggcct aggttggtga caatggtatt gtggttatta ggacaattat 60
ttattttgcc ttggtgtcag aggcgtgtga accagagcaa ctctcatctc gag 113

<210> 251
<211> 244
<212> DNA
<213> Homo sapiens

<400> 251
gaattcggcc aaagaggcct agtgtagctt ggttttattt atgtccacaa atatttcaaa 60
aaaattacaa aatactcaaa tggagagaac acagaagtca cgatttctgg gtgtctactg 120
tttacactgt gttatctcat ggcaaactac tcatatatac atttagcttc aagatatata 180
gaaacgtagc aaatccgagt gtgcacgctg cctctgccgc agtggagtga agctcaacct 240
cgag 244

<210> 252
<211> 291
<212> DNA
<213> Homo sapiens

<400> 252
gaattcggcc aaagaggcct aaatttatta aggggtagat cacttttaga aaaattgctg 60
gaagtaattt ttcatgatca tgttatctac attctaaaaa ttaggagaga gactgtgtac 120
aaagagtgtt tattttagag ctttccttgt atttcaaatt gaataacagg cattctcatc 180
ataaagtttt taaaagaaag gcaaagcaga ctttctgtag gaaatcattg acgttaaaat 240
agttataatt gtgaacagat acaacattta ttcatgaagg taattctcga g 291

<210> 253
<211> 195
<212> DNA
<213> Homo sapiens

<400> 253
gaattcggcc aaagaggcct agttattttg ttctgttctg tcatgtgcca caaaatatgt 60
actttttca ctttttccc tttgtatatc agttacgggt tacaactggt tcattctgaa 120
aacaacaaca acaaaagtcc attcatattt tttaacaatt gtataagtgc ccaagtaatt 180
cactacagcc tcgag 195

<210> 254
<211> 284
<212> DNA
<213> Homo sapiens

<400> 254
gaattcgcgg ccgcgtcgac tttttgatgg aacacagttc tgtgatggga agctatccca 60
gtctcccatc cttgcaaaac tgctgcttag tactcaggtg ttctctaggt tgttctggaa 120
catttacaaa cttctttggg tgtgaggatg tgctgccaca aggccaaaaa tcacattctc 180

tctctctctc ctctcctctc taccattctc ctcagtgcca ggtggggaca gattccaccc 240
actgggcctg ggaggaagaa aagcaccttg gcccccgtct cgag 284

<210> 255
<211> 219
<212> DNA
<213> Homo sapiens

<400> 255
gaattcggcc aaagaggcct acttgggagg ttgtgtgttt ccaggaattt atccatttcc 60
tctagatttt ctagttgtgt gcagagaggt gttcatagta ggcattgatt gatgatctgt 120
atttctgtag gatcggttgt aatgttacct ttgtcatttc tgattgtgct gatttggatc 180
ttctcccttt tttttattaa tttcgctagt ggactcgag 219

<210> 256
<211> 180
<212> DNA
<213> Homo sapiens

<400> 256
gaattcggcc aaagaggcct agcatactgg tacatgagag cagtagtgtt gtttgctctt 60
attttcaacc agggagctat ctggcacctt ttgtgctcct ggcttttttc aatcatagca 120
ctattgcatc tcctagctat ttcttttgcc cagcagggta atattgagtc ccatctcgag 180

<210> 257
<211> 500
<212> DNA
<213> Homo sapiens

<400> 257
gaattcggcc aaagaggcct aggaagagac tagaagaaca gcacgcccag caattatcac 60
tactcatagc tgagcaggaa agggaacaag aaagactgca aaaggaaata gaagagcagg 120
agaaaatgtt aaaagagaag aaggcaatga cagcggaagc ctctgagttg gacattaaca 180
atgcagtgga attagaatgg agaaaaataa gtgactctag tttgctggaa acaatgctgt 240
ctcaagcgga ctcactccat acttcaaatt caaatagttc tggtttcaca aattctgcca 300
tgcaatatag ctttgtttct gcaaacgaag caccattcta cctctgggga tcatcaacta 360
gtggcttgac caaactctca gtaacaaggc cttttggaag agccaaaact agatggtctc 420
aagtttttag tctggaaata caagcaaaat ttaacaaaat aactgcagtg gcaaaaggat 480
ttcttactcg tagtctcgag 500

<210> 258
<211> 302
<212> DNA
<213> Homo sapiens

<400> 258
gaattcggcc aaagaggcct agtgcaaaat taaagaattc catgataact atgttatttt 60
ccatttgcat gtgcatttgt ctatcgatcc ctaaaatata tcttaaatta gtctgctttt 120
ctccactttt ccccctccat tttattttta tttatttatt tattttgaga caaggtctag 180
cactgtcgcc caggctggag tgcagcaaca caatcacggc tctctgcagc cttgaccttc 240
caggcccaaa tgatcctccc gcctcagcct cacgagtagc tggggcggga ggaccactcg 300
ag 302

<210> 259
<211> 283
<212> DNA
<213> Homo sapiens

<400> 259
gaattcggcc aaagaggcct ataaagatta ttatattaat tcaactttga tctgatatat 60

cacttaaact aaaggggtgt gtgtggtgta tgcttgtttc ctatttctgc tctttaaaga 120
tactttgaat caataaaacc attagtctac aaatcaaatt gtgaacttaa tctctagaaa 180
gagaatataa ctcagccatt tataggaatt taggttcaag tacaggatat atgaaatctt 240
ttcccagtat ttcagaatgt acttaattca cagatcactc gag 283

<210> 260
<211> 279
<212> DNA
<213> Homo sapiens

<400> 260
gaattcggcc aaagaggcct actggcctca agtgattctc ctgcctcggc ttcccaaggt 60
gctggaatta cgggcatgag ccactgcgcc tgaccagaaa agtggtttac ctgataaagt 120
ggcatttgaa ctgagatctg aaagtagaat atacttgaag tagatgaaga gaggaatgac 180
aatattttat agcagaaagg acagcagccc ttggtggcag gaggcatgtt gtattccagg 240
aacgaaagac caatgcagct gtagtggagc accctcgag 279

<210> 261
<211> 208
<212> DNA
<213> Homo sapiens

<400> 261
gaattcggcc aaagaggcct aggtttgcct ctccttacag cacagagtta tcatcattat 60
ccatacaccc atagaattca gaacaatctt ttcctagtac tagaattggt gcatcatgat 120
tatttacatg tccatcttgc aattaataaa aatactaaca atactaacat acgttggtca 180
ggcaggcact gcacaaagcg acctcgag 208

<210> 262
<211> 160
<212> DNA
<213> Homo sapiens

<400> 262
gaattctggg actaaattct gtaacatctt cgtggatcgt tctgctactg tgggaaagac 60
agcattttgt tacagcagag accagaattg agaaaaccag aataaaaaaa ctgttcccta 120
ggccatgaag gccggccttc atgccctagt tctccctata 160

<210> 263
<211> 226
<212> DNA
<213> Homo sapiens

<400> 263
gaattcggcc aaagaggcct acgttgaagg acaccagctg cggaatttgc ggctttggca 60
gattgaaatc atggcaggtc cagaaagtga tgcgcaatac cagttcactg gtattaaaaa 120
atatttcaac tcttatactc tcacaggtag aatgaactgt gtactggcca catatggaag 180
cattgcattg attgtcttat atttcaagtt aaggtcccca ctcgag 226

<210> 264
<211> 201
<212> DNA
<213> Homo sapiens

<400> 264
gaattcggcc aaagaggcct aatgccatcc cctctgcctg gaatgccctt ctgcatgaat 60
gcctgtgaaa tgttgttgct cctttgtatg gcctggcttc cgtggttggc aggaatctct 120
tctttcgtgg tattcctgtc atctttgtgc atcacagtca gctttgtatt cctagcttgt 180
aagctacggg agaaactcga g 201

<210> 265
<211> 229
<212> DNA
<213> Homo sapiens

<400> 265
gaattcggca aagaggccta gtatgtgtgc tttctttgcc ttcctatttc ctttcaaaga 60
aatctcttgt aaattacaaa actgtgaatt gggttgccaa aaactgttgc ccttcgttag 120
atgcttcaaa cagtgtaaat cctatactgc accctgtcca cctctgctcc ctcctccctc 180
ccctgagagt gaggacctca tccgaccatg taattaccat tcgctcgag 229

<210> 266
<211> 249
<212> DNA
<213> Homo sapiens

<400> 266
gaattcggcc aaagaggcct actttaacca tccctcccta tgaagtataa aaaaggtact 60
gccagctggg tgcagtggct cacgcctgta atcgcagcat tttgggaggc cgaggtgggt 120
ggatcacctg aggtcaggag ttcgagacca ggatggccgg catggcgaaa ccgcgtctgt 180
actaaaagta caaaattagt tgggcgtggg ggtgcgtgcc tgtggtttca gctacctgga 240
gaactcgag 249

<210> 267
<211> 276
<212> DNA
<213> Homo sapiens

<400> 267
gaattcggcc aaagaggcct agtaggggag tgcgtgaggg cggcgctgat tgataggagc 60
caaggccaat cataacgatt accgtagact ggaaggcgga ccaagaatac gctaatgagt 120
tgctaatttt gacagatgtc cttcggcctt ctccgtgtgt tctccattgt gatccccttt 180
ctctatgtcg ggacactcat tagcaagaac tttgctgctc tacttgagga acatgacatt 240
tttgttccag aggatgatga tgatgatgag ctcgag 276

<210> 268
<211> 312
<212> DNA
<213> Homo sapiens

<400> 268
gaattcggcc aaagaggcct agtcttcaat aaattgatta gtatcaaagg gaagatctta 60
aatcttggag cttttctttt tggaaccttt taattcagtt cctgtcacac cttcctttga 120
tttttaaaaa aatctcccct taactgttct gggatctcac tgctgctccc acacgcctaa 180
cacccatccc ctccacattc acccaaaggg agacactggg ggaggcaagt gtatggaatg 240
tctttgcatt tagatgctgg aactctgaca tcatctcttt tattcataag tttattcaac 300
actatactcg ag 312

<210> 269
<211> 187
<212> DNA
<213> Homo sapiens

<400> 269
gaattcggcc aaagaggcct agagttactg aagcacatca aacacaaaga cagtaattat 60
cagaggtgcc ttcttacatc agcgatttat gcactccaag gccgcagtgt ggctgtgcaa 120
aaacaaatat ctaaagctgt tcacagcaac cctggtgacc ctgctctttg gtctctgttg 180
tctcgag 187

<210> 270

<211> 328
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (31)

<400> 270
gaattcggcc aaagaggcct actgcacgtt ntgagcatgt acccatttaa ccaaaactta 60
aagtataatt aaaaaaaaaa gaataagaat acaacaataa aaatacatat aagaaacaat 120
ggagtataac agctatttac atagcatttg catcatatta ggtattctaa ctcatctgga 180
gatgattgaa agtatatggg aagatgtgcc aaggttatat gcaaatacta tgccatttta 240
taatagggac ttgagtattt gcagatttgg gcatctctgg gaggtcctgg aaccagtccc 300
ctcggatacc aaggtacggc aactcgag 328

<210> 271
<211> 207
<212> DNA
<213> Homo sapiens

<400> 271
gaattcggcc aaagaggcct agcagtaatc tctatgatgt tctctccttc tctgcttcaa 60
cccagagccc tcccttcccc acctctcaga ctctcccact gtgccatgtg gaagtgtcac 120
aacacaacca catgctctgc tgtatcatct ccttgtcctg aaaagctctg tttgcctccg 180
acttcattga gacccatcaa actcgag 207
<210> 272
<211> 301
<212> DNA
<213> Homo sapiens

<400> 272
gaattcggcc aaagaggcct acaaaatatc attattccgt aatttcctaa agtgcacttg 60
tatgtattga aaagattata gatagaaaca tacataactt ttaaatgttt tctatgcgga 120
atttctcatt atgtccagca tgtggtttac catgtttatc atctcctgtt gtcttaaggt 180
caggggttgc aacaagggag gtcaaaattg gccggggctg agcacaaata cacacccaca 240
gcccttcagt gacctcaggc agcaagatgc ctccccacctc cccccaacac ccaagctcga 300
g 301

<210> 273
<211> 149
<212> DNA
<213> Homo sapiens

<400> 273
gaattcggcc aaagaggcct aggcacgctc tcctcctacc cgaccaacct ccctaccacc 60
tgaaagcctt caacctgcgc atcagcttcc cgccggagta tccgttcaag cctcccatga 120
tcaaattcac aaccaagacc tgcctcgag 149

<210> 274
<211> 231
<212> DNA
<213> Homo sapiens

<400> 274
gaattcggcc aaagaggcct aatctacttt tatctataca gtacacatag aaggctatgt 60
gactatttag aattcaatgt ttgtttacta gttcatcttt agcttacatg ttcattagtt 120
ctgagtagaa ccaagaaaaa ctaattgaag agtatatgct tatgtattat ctcttgctgt 180
gatttaacca atcttgttac atgtattact aataaaagtc cccagctcga g 231

<210> 275
<211> 291
<212> DNA
<213> Homo sapiens

<400> 275
gaattcggcc aaagaggcct aatctattca aactataaga agattacctg ctgacatacc 60
tcaatatttc tatagaaatt gcgattgata ttccaattta agggagtaat catctagaag 120
agacatatac aactggtgag aaaacacatt tggctcggca cacttgttaa catagtacgt 180
ttatatttat gaatgacgaa cagcatgaca tctgaagaca acatcatcaa gagaaagatc 240
caggatgaac taaaaacaaa ccaaaacaaa tcaaccctgg agaaactcga g 291

<210> 276
<211> 271
<212> DNA
<213> Homo sapiens

<400> 276
gaattcggcc aaagaggcct acgtcatcat agctcacggc agccttgaac tccagggttc 60
aagcagtctc tcctgccttg gtcccctgag tagctggcac tacagacata cgccaccaca 120
cctggccttt tttttgagag gagaccttgc tgtgttgccc agcctggtct tgaactcctg 180
gcctcaaatg atcctcccaa agtgctggga ttacaagcat gagccaccgt gcccagccca 240
cttcataaat tttagtcatg caatgctcga g 271

<210> 277
<211> 233
<212> DNA
<213> Homo sapiens

<400> 277
gaattcggcc aaagaggcct aaataaacag acgctgtggc tactggagtt cctcctggct 60
ccttggtgag agtagagagg taatctcgtt tttccaatat aatcttttag gtgtttgcct 120
caggtacctc ttggaagtag acactgagga tttcagtttg tttgacttcc tgccagctga 180
gttcaagagg acaagctaat gaatacctta tgtttcttgc acacatcctc gag 233

<210> 278
<211> 283
<212> DNA
<213> Homo sapiens

<400> 278
gaattcggcc aaagaggcct agtgattatt attaaggata gtaacccttt ggcatattgg 60
ctgcaaattt ttctcctaaa tttttactca ctttctagct attggctttg atgtttctga 120
cataaagaga tttttaattt ttatgtgtta tatctttgga tctttttctt ttttatttct 180
ctcgttatct ttacacttag aaaattctca tgtacgccag gtgcgatggc tcatgcctgt 240
aaccccagca atctgggagg ccgaggatgg tggatcactc gag 283

<210> 279
<211> 222
<212> DNA
<213> Homo sapiens

<400> 279
gaattcggcc aaagaggcct acagagataa tctggcttgg tttaccccat aatctaattt 60
cagaaaagaa agctttattt taacactcat ctgaatcaac attaaagcct tttctctcaa 120
agcgtttatt gagaaactca aatgaatata ctttttgaat tactgtcatc aaaagtgtac 180
ggcttcctgt gctgcttgtg tcaaatggaa ccggacctcg ag 222

<210> 280
<211> 347

<212> DNA
<213> Homo sapiens

<400> 280
gaattccgcc aaagaggcct agtaaatcca ccaccaaaat tattaatcct cttgagagaa 60
acgtgaaacg ccacaaaaat agagaaaatt caggtctgta tgtcatggat cgtgttggta 120
ttttcagaga acatcccgct tctgaagctg ctgcagctcc ctcctcaggg atcacactgc 180
cgtcacccac tctgcactgg ggcgtttcct actgcgcctc gtgctggcgg acgcagctgg 240
gtgcagaagc tgtggggtcg gagaggcgtt tggagaaggt ctgtggtgca gtgtgtgaaa 300
attcaggtgc tagaagccta ctggtagaaa aacccaaaaa gctcgag 347

<210> 281
<211> 159
<212> DNA
<213> Homo sapiens

<400> 281
gaattcggcc aaagaggcct accaacactg gacaaattga tgaccccccag gagcagcaca 60
gagtcatcag cagcaacctg gccctcatcc aggtgcaggc cactgtcgtg gggctcttgg 120
ctgctgtggc tgcgctgctg ttgggcgtgg tgtctcgag 159

<210> 282
<211> 207
<212> DNA
<213> Homo sapiens

<400> 282
gaattcggcc aaagaggcct aatttttggt ggttttagtg atcagtaatc aaatttgtac 60
ttattatgct tgttcaggta atttacttga ctgttctatt tgtttgtcca aaagataaaa 120
tgatgagaga gattcgagag gtctttgatc tgtctccctt ttaagaaatg aagccagctg 180
gtaatgtata ttcaggaccc tctcgag 207

<210> 283
<211> 328
<212> DNA
<213> Homo sapiens

<400> 283
gaattcggcc aaagaggcct agagtacttt tgcatatatt atttaacccc tccaacagtg 60
ctttgaggaa gataactatt tttatcccaa tttgctcgta gggaagattg cttgaagtca 120
cactaaatag tagagccaga attcaaacca aagctatctg atccagttcc taccattctt 180
aaccattctg ctaatttcca gaagtccagc tgataaagtg taaaacaaaa gttgtttgtt 240
gctgttacca agaaaatatc agggaatgct ttctactaat acatcagcag cctctcttct 300
tcttcccctc tctcctccta ctctcgag 328

<210> 284
<211> 323
<212> DNA
<213> Homo sapiens

<400> 284
gaattcggcc aaagaggcct agtggagaag aagaaagcca ggatccccac actaccaacg 60
atcagaagtt tgcccaacag gaagaggaag tcagtaactt tatccaggac agccactctg 120
ataatgtttc tcatgagcag gaagaaggca ttcctggccg aggtgcagaa attggtgccg 180
tagatggcaa tcatgatgta ggcattccta ttaaggaatt tgatgaactt ctccaggcac 240
cagaagcagc atttgagaca ggtcatgagg cacttggcaa acttgttctc tgcagctttc 300
agccgctgat ccaggtactc gag 323

<210> 285
<211> 410

<212> DNA
<213> Homo sapiens

<400> 285
gaattcggcc aaagaggcct accacgatga cagattacgg cgaggagcag cgcaacgagc 60
tggaggccct ggagtccatc taccctgact ccttcacagt attatcagaa aatccaccca 120
gcttcaccat tactgtgacg tctgaggctg gagaaaatga tgaaactgtc cagactaccc 180
tcaagtttac atacagtgaa aaatacccag atgaagctcc cctttatgaa atattctccc 240
aggaaaatct agaagataat gatgtctcag acattttaaa attactagca ttacaggctg 300
aagaaaatct tggtatggtg atgattttta ctctagtgac agctgtgcaa gaaaaattaa 360
atgaaatagt agatcagata aaaactagaa gagaagaaga aagactcgag 410

<210> 286
<211> 387
<212> DNA
<213> Homo sapiens

<400> 286
gaattcggcc aaagaggcct atgcggtttc aggctttatt aacaaacggt gtaaaaaacc 60
agacggatct ggaggaaggg acagggctgc ccgtctcagc tctcaacctt cccagagagg 120
ggccaggcct ggcagccctg tgcgtcgcgc ctcctaagca gtcaaccttg tcccctccaa 180
ggacaggcat ctgacccaat ccaggtccca gggaggcgga gtcgcaaacc ctaactctgg 240
ggtgtattct gctcggcctc ctctcccct ccccagatag ctctcccagc ctggggcacg 300
gacagcacag actttgcaga catcacccgg ggaggtttct cagtgcagac aggagctgag 360
gtaggggttg gagaggctga cctcgag 387

<210> 287
<211> 369
<212> DNA
<213> Homo sapiens

<400> 287
gaattcggcc aaagaggcct aaaagtatct actagaataa taattccctg gccctattgt 60
cctttatttt aaaaactatt ctggtatatt gctacatttc tttttctcta caaacttaaa 120
attattttgc cactttatcc ttcctaaata aaccatatcc gtttttattt tagtgaagtc 180
acattgaaag tattaactgt ttgcataaga tattcttgta atatccagga tttcttataa 240
gaactgagat tttttaaaaa ttattttctg tctcagtaaa gctttttttct acacagatat 300
ctaaatatgt cacttaaggc aattactagt tgtttatttc atgtaatatt attccgggtt 360
gctctcgag 369

<210> 288
<211> 211
<212> DNA
<213> Homo sapiens

<400> 288
gaattcggcc aaagaggcct agaaaagttt ccctgctcag atttttcact gtgctgcact 60
gaagtttcgt ttgagtgttg ccccatcaca gcaaatgtat gttacttatt tccacacata 120
acagattatg ctttcattaa catcccagct gctgcatttc tcttccagct ttttaacttc 180
cgtaaattca catctttaca tgttactcga g 211

<210> 289
<211> 581
<212> DNA
<213> Homo sapiens

<400> 289
gaattcggcc aaagaggcct aggaatagca aatagaagtg ctagtattta ctagatgcag 60
tgattgctac agttggtttt aagtaaaaca gattgttttt gattattttg aaatcaggca 120
ataatatata atgctgttta cagttcttta aaaaatatgt aacttaaaaa ctcagattgg 180

gaaggggtaa caatctgagt ttttcttttt ctctaagtgt tctgtgaaaa tcttttttta 240
agtcgttcct acttcaggta ttatcacaaa tgtttgattt ctatatgtat gccttaagtg 300
atatatgaca cattttttc cttgactctt ccttgcggaa atttcattac ttgttcatag 360
tttgaatcta agaaatattt gcttttcata gtcagcaggg ccaaaacttt ggtcttgaca 420
actttttgtc aggcattttc acatatcgac agtgttttg cataaactgt attgcttttg 480
caagtatata gtaaattttt ttcttaatct tcagatgtta tagtatcaaa aattcaaaga 540
cctaagtttt aaaaatgtaa ttgtttgcag taatactcga g 581

<210> 290
<211> 264
<212> DNA
<213> Homo sapiens

<400> 290
gttctaactg ccttcttttt tctcacagag gtggcttatg gcagattttt cctccttcaa 60
actccaaaca taatttttaa gactatgtgc cagtggactc ttcccttata tctctgcacc 120
acaagttgtt ggatgtttcc tcttcctccc ttatgtctac ctcaccaacc tcgctcatca 180
tttggccctt atccttcctt gtacacctac cttcagattt ctgcttacac tttgatttca 240
gagctttatc ccccagtcct cgag 264

<210> 291
<211> 151
<212> DNA
<213> Homo sapiens

<400> 291
gaattcggcc aaagaggcct acgaatacct tcatttacct gtgtcttctg ataacacctc 60
tcagaaagct atagttcttg aaagtttcta taggatttct aaaatttcaa atatgcagtc 120
acttaaaaaa aaaccacacc acgtactcga g 151

<210> 292
<211> 476
<212> DNA
<213> Homo sapiens

<400> 292
gaattcggcc aaagaggcct attacctgta gtttgctttt tattggatat ctatttatta 60
tatatacata cttttaatga agcataataa atatatgaga atgtgcacat atcaaagtca 120
caactgtgcc aatttttaca ctgttcactt ttgtaaacaa tactcagatc aagaaacaga 180
acattagcaa taagaacata gcaacaaagt gccttctcgt cctccttctt tctagttact 240
gcctgcctct tcaaaagtta cccttgctga cttgtaacta ctagactagt ttaatctatt 300
tttggacctt atataaatgg aatcatgcaa ttatatatat atatttattt ttatgactgg 360
cttcttattt tccacattat gtgagcaaga ttcatccata ttgctgtata taggttctca 420
ctacttcata atctatattg tatttcatta tgtcactaca acaaggttcg ctcgag 476

<210> 293
<211> 503
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (28)

<220>
<221> unsure
<222> (93)

<220>
<221> unsure

<222> (111)..(112)

<400> 293
gaattcggcc aaagaggcct agccattntc ctgcctcagc ctcccgagtg gctggggctg 60
cgggtgcccg ccgccacgcc cgactaattt ttngtatttt tatttttttt nnagtagaga 120
tgggttttcg ccgtgttggc caggatggtc tcaatctcct gacctcgtga tccacccgcc 180
tcggcctccc ggggtgctgg gattacaggc gtgagccacc gcgcccggcc tttttagaa 240
ctttctagga atctgttttt ccaattgctt tgtatatcag gctctctgcg tctgtcagaa 300
ctgctactgc atgtataaca ctgtctttaa tgttcacttt tgtgttcaga tatttgtata 360
ttcagttttg ttgactgtag ttttccttaa gggttttctt aaagcaatga ctatttatta 420
tgtttctcta tgttctaaaa cttagtgcac tgttgtctac cttatgctta ctgtatgtga 480
caacttttca gggaaacctc gag 503

<210> 294
<211> 264
<212> DNA
<213> Homo sapiens

<400> 294
gaattcggcc aaagaggcct acttgctttg tgtatctcat ttaatttgtt ataaggtagt 60
actgatttta gcatattaat gcgatttctt ccttgttgtt tgctttggtc tgtgttcaat 120
ccagagagct taaattgtca ttattttggg aagaaaacct gtatttttgt tagtttacaa 180
tattatgaaa tttcacttca ggagaaactg ctgggcttcc tgtggctttg ttttcttagt 240
tactttttcc gtgcctgcct cgag 264

<210> 295
<211> 218
<212> DNA
<213> Homo sapiens

<400> 295
gaattcggcc aaagaggcct aaaagttaaa aataggcttt ttaggaactc actctttaga 60
tatttacatc cagcttctca tgttaaatat ttgtccttaa agggtttgag atgtacatct 120
ttcatttcgt atttctcata ggctatgcca tgtgcggaat tcaagttacc aatgtaacac 180
tggccagcgg gcccagcaat ctccatgtgt acctcgag 218

<210> 296
<211> 243
<212> DNA
<213> Homo sapiens

<400> 296
gaattcggcc aaagaggcct agtagtaagc agtgtcctca atagcatcct ttaggtaaac 60
tctgagattc atttcattgg gctttttgtt ttattattat tatttctcag tattgtttta 120
tagcatcaca ccaaagtaca gttcagtaaa agcagtctct acctgtctag cttgatagag 180
gtagattttt agagaatcca aggcaatgag taggtaatgt tcatctttca agcagttctc 240
gag 243

<210> 297
<211> 299
<212> DNA
<213> Homo sapiens

<400> 297
gaattcggcc aaagaggcct attttctttc cctaaatgct tcatctccct acccctcctg 60
cagtgaacct aatgtcctcg atgactccca gggcctggcc gccgagggca gcctctctag 120
gtacagtgtc aatgctacct gtctattggt gtctgtgctg ggaaactagc tgttccctgt 180
ctcctctgtc tctctgtctt ctctgtctct tctcgccccg tcttaatatc tatttccatt 240
ccttgccctt tgttgttcat gaacatatga gcctggaagt caaaggtgta gcactcgag 299

<210> 298
<211> 221
<212> DNA
<213> Homo sapiens

<400> 298
gaattcggcc aaagaggcct agggtaatag aaatgagata tggttttggt attcctggat 60
tagccatcta ctgggctggc agccctcaca tggctggcct gccctgtctc gtgagatgga 120
tcagccttga ggtgacctgt caggaaagga catttgggct ggaagtagca gaagcctctg 180
tgagccatcc ttcaggcaga actagtcagg agcagctcga g 221

<210> 299
<211> 247
<212> DNA
<213> Homo sapiens

<400> 299
gaattcggcc aaagaggcct aggaattaag gtcaaactaa ttctcacatc cctctaaaag 60
taaactactg ttaggaacag cagtgttctc acagtgtggg gcagccgtcc ttctaatgaa 120
gacaatgata ttgacactgt ccctctttgg cagttgcatt agtaactttg aaaggtatat 180
gactgagcgt agcatacagg ttaacctgca gaaacagtac ttaggtaatt gtagggcgag 240
cctcgag 247

<210> 300
<211> 269
<212> DNA
<213> Homo sapiens

<400> 300
gaattcggcc aaagaggcct aatgtaatga tgattggaaa aatgatgata gacatgatgt 60
actttgtcat cattatgctg gtggttctga tgagctttgg ggtcgccagg caagccatcc 120
tttttcccaa tgaggagcca tcatggaaac tggccaagaa catcttctac atgccctatt 180
ggatgattta tggggaagtg tttgcggacc agatagaccg taagcaagtt tatgattctc 240
atacaccaaa gtcagctccc ttgctcgag 269

<210> 301
<211> 159
<212> DNA
<213> Homo sapiens

<400> 301
gaattcggcc aaagaggcct agtcgtcctt tctgtttact cctttttttg atatattatt 60
ttcttgtccc tatctgtatt taatagactt tcctttttc atttcctctc tctactgatt 120
tgaggtatga atactctgtt tctatttgtt atcctcgag 159

<210> 302
<211> 154
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (109)..(110)

<220>
<221> unsure
<222> (127)

<400> 302
gaattcggcc aaagaggcct agtggggtga acggcagctt gaagaaatga ctgttctctt 60

tctgaaattc ataattctat ttcctgtgac cccaacccgc aaagggctnn ttttttgga 120
aagcctnaaa aaaaaaaaa cacccacgct cgag 154

<210> 303
<211> 210
<212> DNA
<213> Homo sapiens

<400> 303
gaattcggcc aaagaggcct aatttaagaa cattgaaatt acatcaagta ctctctcaga 60
ctacagtgga ataaaattgc aaatcaactc ctaaaggcat ccccaaacca tacaaataca 120
tgcaaattaa ataacttgct cctgaatgat cattgagtca acaaggaaat caagatggaa 180
attaaaaaat tatttaaact gagtctcgag 210

<210> 304
<211> 439
<212> DNA
<213> Homo sapiens

<400> 304
gaattcggcc aaagaggcct aggggatgtt tggaagagca gaaatattag ttggttttta 60
atatgtacct tgtttgtact taaaaatagg aaggatgacc tctgttatgt aatggcagaa 120
tgcttagcaa aatttttcc tgcagttatg tagaaaacac agctttcagt ccataaactt 180
gtatatatag ttaaggagat tgtcaagcaa agtgctaaag gtgccaggag cctatagtaa 240
actgccagag tatttaggct atttcaagag attaggagtt gctccgtata tcctctcatt 300
caagccagag ggcctctagg aagaggaaca aaaaatgaag aagaggttat gataaaaaga 360
tttatggata tgacttttgt ctaatcgagc aaaaatctat agatggaaat ctatacgtaa 420
ggcccacaaa gtcctcgag 439

<210> 305
<211> 564
<212> DNA
<213> Homo sapiens

<400> 305
gaattcggcc aaagaggcct atcgagagac tgcagctcga caggaatgct acccagaact 60
gaagcctgtg cagtccatca acgcccatcc ttccaactgc atctgtatca agtttgaccc 120
catggggaag tactttgcca caggaagtgc agatgctttg gtcagcctct gggatgtgga 180
tgagttagtg tgtgttcggt gcttttccag gctggattgg cctgtaagaa ccctcagttt 240
cagccatgat gggaaaatgc tggcgtcagc atcggaagat cattttattg acattgctga 300
agtggagaca ggggacaaac tatgggaggt acagtgtgag tctccgacct tcacagtggc 360
gtggcacccc aaaaggcctc tgctggcatt tgcctgtgat gacaaagacg gcaaatatga 420
cagcagccgg gaagccggaa ctgtgaagct gtttgggctt cctaatgatt cttgagagga 480
ggttgtaggg agaggaggcc ccggcagagg tcttccttca tgtggttagt ttggtctgtt 540
ctctcggagt gggtgggcct cgag 564

<210> 306
<211> 258
<212> DNA
<213> Homo sapiens

<400> 306
gaattcggcc aaagaggcct acttgaacag tcaagaacaa attaaagttt ccacggcaaa 60
tttgttttca aaatgccgaa ttgcgaaaca attgctggct tcacgtttct gaataccttt 120
aatagtttct ctgcgttgca gtttgtaagt ttccttgtca tgacacagtc gataaataaa 180
gaaacccagg tgatcaatgt tttcaatgcg atcagtaata accatgtgct catgaatcag 240
ataggactga ggctcgag 258

<210> 307
<211> 352

<212> DNA
<213> Homo sapiens

<400> 307
gaattcggcc aaagaggcct agggaaggtt ggttccccgt ctgtctccct gcctcttctt 60
cctctacggg tccctctgct ccacaggggt agaacatcaa tctgtgcgag gaaggccagg 120
cggagggtgt acccactgcc ttgcactggc cttctcccta gagggccggg aggcaggaag 180
agccatttcc tgtggggcca cagcactggg cacagttaaa agtagcaggg cccagatatg 240
ccttgggact ccagtgtgag cctcgtcctt gtttccagct ggaaggaagg caccctcttg 300
cccaagacag gacactttgc tgcctggggc cagcacctgc tgaatcctcg ag 352

<210> 308
<211> 405
<212> DNA
<213> Homo sapiens

<400> 308
gaattcggcc aaagaggcct actcaggtca gggaggaggc aggggagtgg ggtctcccag 60
acccaacggt gagctcagag caagcttcac gcaggacgct ccgaaacact gtgtggaggg 120
ggctgtgttg tgggcacctt ggggcctgat tctccttcct ccgaacgggc tccttgatgg 180
cctggccaca ggggcagctc cccattggct gttaggacca gagtgtgaag aagaagtgaa 240
atataaatat gtatacatat ataaatatat ttttaattac atgtcgtgtc acggtggctc 300
cagacatact gtttgcctag tttattccac tgcttgaaag cgcttcctag ccaatctgaa 360
caacaacact ttaagctgtt tttctaaatg caggtgctac tcgag 405

<210> 309
<211> 207
<212> DNA
<213> Homo sapiens

<400> 309
gaattcggcc aaagaggcct aattggagga cagcccctgg ggtttgatga gtgtggcatc 60
gtggcccaga tctcagagcc cttggctgct gcagacatcc cagcctacta catcagtact 120
ttcaagtttg atcatgcact tgtccccgaa gagaacatca atggtgtcat cagtgccctg 180
aaggtcagcc aagcaaagaa gctcgag 207

<210> 310
<211> 252
<212> DNA
<213> Homo sapiens

<400> 310
gaattcggcc aaagaggcct attctggaac actatagtaa aggtatttcc tacttggctg 60
gcgcccaatc tgataacttt ttctggcttt ctgctggtcg tattcaattt tctgctaatg 120
gcatactttg atcctgactt ttatgcctca gcaccaggtc acaagcacgt gcctgactgg 180
gtttggattg tagtgggcat cctcaacttc gtagcctaca cgctagatgg tgtggacgga 240
tgcaaactcg ag 252
<210> 311
<211> 227
<212> DNA
<213> Homo sapiens

<400> 311
gaattcggcc aaagaggcct agtgatttac cattttattc aaaaaaatta gaagaagagg 60
acagaaatct agttgtcttc aggctccatt tgattgaggt gttattcctt tgtctttgaa 120
ttatatttta ggttaggccg aatggaaact ttatttggat tgcacatctg attatattgt 180
gaacatcaac cttgggtata ggaaatttca ttatgaggct actcgag 227

<210> 312
<211> 188

<212> DNA
<213> Homo sapiens

<400> 312
gaattcggcc aaagaggcct ataaaccgtc gattgaattc tagaactgcg ctccagcctg 60
gacaatagag ggagactgtg tctcaaaaaa aaaaaaaaaa aatctgtatg gaggaggtct 120
tacaaatatt agtaaccaca ctttttgttt tttttcttca acttttcagt tttggggcaa 180
cactcgag 188

<210> 313
<211> 412
<212> DNA
<213> Homo sapiens

<400> 313
gaattcggcc aaagaggcct agagcaaaat tactgagttg ctctttatcc tttcgttgac 60
tgtcagacct acatttttcc tcagattgca ttatttgatg cttacattgc attttttttt 120
tcttttgaga tggagttttg ctcttttttc ccaggctgga gtgcaatggc gtgatcttgg 180
ctcactgcaa actccgcctc ccgtgttcaa gcgattctcc tgcctcagcc tcccaagtgg 240
ctgggattac aggtgtgcac caccatgccc agctaatttt gtatttttag tagaaatggg 300
gtttccccggt gttggtcagg ctggtcttaa actcctgacc tcatgtgatc cacccgcctc 360
tgtctcccaa agtgctggga ttacaggcgt gagccacgac tctaggctcg ag 412

<210> 314
<211> 230
<212> DNA
<213> Homo sapiens

<400> 314
gaattcggcc aaagaggcct agattaaatt agttaccagt aaataataag tttgttttgt 60
gaatgcatat gtttattgtg tgtttattta tttatttatt ttctgcaggg gacaggctct 120
taagtgtaca ctgggtggcc gcctgccaac tccgagtggc tccctccccc acacaaatgt 180
ttattgatct ttttccctcc agtaatgtgt taccaggtgc ttccctcgag 230

<210> 315
<211> 259
<212> DNA
<213> Homo sapiens

<400> 315
gaattcggcc aaagaggcct aagcttttac agtggactct ggtattttat agttctccac 60
tggcagctga aatacgtgcc acagtctcaa tcggcaggca ggacaactta ggacataatt 120
tattaaaaag cagattcttt tattagatta aatagtaaac aaaatgattc aaataatggg 180
ttatttacat ttctgcatcc ttggagtaaa cacctacttg aagcataaag ctagagaaga 240
aatcaaaacg tctctcgag 259

<210> 316
<211> 217
<212> DNA
<213> Homo sapiens

<400> 316
gaattcggcc aaagaggcct agtgacatca tatgagtttt cccaaaagtt tcctcctaat 60
ttgcctccta catatctctt ccctgatgtc cagaataatt tacggtcctc tccccatcgg 120
gtgtgtgtgt gtttgtttgt ttgtttttg tgactgcgag gaggggagtg gacccctcaa 180
ccatgtgcgt gcccccactg ctgccatccc actcgag 217

<210> 317
<211> 251
<212> DNA

<213> Homo sapiens

<400> 317
gaattcggcc aaagaggcct accatcatca tctttgccac tgtcatgttt tatgctgaga 60
agggcacaaa caagaccaac tttacaagca tccctgcggc cttctggtat accattgtca 120
ccatgaccac gcttggctac ggagacatgg tgcccagcac cattgctggc aagattttcg 180
ggtccatctg ctcactcagt ggcgtcttgg tcattgccct gcctgtgcca gtcattgcat 240
ccaacctcga g 251

<210> 318
<211> 239
<212> DNA
<213> Homo sapiens

<400> 318
gaattcggcc aaagaggcct atggatatgg tattttatat ttgttttctg tcttgaaatt 60
atagaaaata aaacgatata aaggcatttt atggtgtttg ttgatagctt attatattac 120
attgaaaagg aatcaaactg ctctcttgca ttctaacttc aatatttacc taaatgtttt 180
ttgtgtctgt ccctttattt ctgtttactc tggtatctgc ctgctgtccc ccgctcgag 239

<210> 319
<211> 233
<212> DNA
<213> Homo sapiens

<400> 319
gaattcggcc aaagaggcct atcgaaaacc tgcacccttg cgtgtcctcc tagaccacaa 60
agaggcccaa gaaaaatcgg atttagtgtc ccttactgat gcattatcga aaacctgtta 120
gagtcctaag cgttctcctg ttagtattgg gaccttacca ctgtcctata aatatgttat 180
gccccaaaaa tgaagtggag ggccataccc tgagggaggg aagggatctc gag 233

<210> 320
<211> 307
<212> DNA
<213> Homo sapiens

<400> 320
gaattcggcc ttcatggcct agctgccctt ctctagttct ggtggccctt ctctaatgtg 60
tctcttcttc ttaggcttgt ctgcacacag atgtgctttc tgcttatgaa tttaggagaa 120
ctacatccat aaattacatc acacctttcc tgcctacatg caattttcct agacttcaaa 180
attttacaaa ccagagagat caagatgcac aggcttccac tcgatgtccc ttgctgtatt 240
ctgaggctaa aaagactaac actgatttag tggctgtctg caaggtaaaa gcattgcttt 300
gatcgag 307

<210> 321
<211> 353
<212> DNA
<213> Homo sapiens

<400> 321
gaattcggcc aaagaggcct aattaaagaa ggagaagcaa gcggatttca gagaggttgt 60
tcttcagaaa aaaaatggtt atttctttga actcatgcct gagctttatt tgtttattgt 120
tatgccactg gattgggaca gcatcacctc tgaatcttga agaccctaat gtgtgtagcc 180
actgggaaag ctactcagtg actgtgcaag agtcataccc acatcccttt gatcaaattt 240
actacacgag ctgcactgac attctaaact ggtttaaatg cacgcggcac agagtcagct 300
atcggacagc ctatcgacat ggggagaaga ctatgtatag gcgcaatctc gag 353

<210> 322
<211> 213
<212> DNA

<213> Homo sapiens

<400> 322
gaattcgcca aagaggccta gaaaagagag tccttaatgg aatggctgaa ttcattgctc 60
ctactacttt gtttgtatat atatcctcat agtcatcaag taaatgattt ttcttcactg 120
cttaccatgg acctgggacg ggtagataca tttaatgaat ccagattttc tgttgtatac 180
acacctgtca ccaacacgac ccaacttctc gag 213

<210> 323
<211> 182
<212> DNA
<213> Homo sapiens

<400> 323
gaattcggcc aaagaggcct aattgaattc catatatgac tggcggacgg gtcatgagga 60
tgctggcagt aatactcttg gtagtgtttt ggtttctcat tggctggact tcatctgtgt 120
gccagaattt ggagaaacag atttcactta ttggccaggg gaaaacaccc gatcacctcg 180
ag 182

<210> 324
<211> 263
<212> DNA
<213> Homo sapiens

<400> 324
gaattcggcc aaagaggcct aggcagcagg tgtggccagt ccctctgcca aggcctgtgc 60
cagaggggtt ggccagttgg agcctgggtc agcctcagca gcctatcccc atgtcctcta 120
tgcccctaat ttgcttcctc atcttggagg gtttggggag aagttggcgt gccaccccca 180
caacccctga ggaggtgtag acccagtctg agagccgcaa gcactgaggc agggcctgag 240
actggacctg ggtgtcgctc gag 263

<210> 325
<211> 230
<212> DNA
<213> Homo sapiens

<400> 325
gaattcggcc aaagaggcct aggctgtaag tgtaaaatac acaccagatt tcaaagaata 60
aatatatgct aaaacaatag tttggatatt aaataccttt ggcctttgca acatttgaat 120
tccaacaacg gatgaacttt atataccatt tgatgaatat catctatttg gataatatcc 180
ttagtattta cagatttaat attccaagtg ttaatgtacc acccctcgag 230

<210> 326
<211> 206
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (71)

<400> 326
gaattcggcc aaagaggcct agaatgtcac agcatcttga cacaaatttg cctatgcctt 60
tgatttttgt ngttgttgtt gttttttatt ttttgagacc agagtcttgc tctgtcaacc 120
caggctggag tgcagtggcg cgatcttggc tcactgcaga ttctgcctcc caggttcaag 180
cgattcatgt gcctcagcct ctcgag 206

<210> 327
<211> 338
<212> DNA

<213> Homo sapiens

<400> 327
gaattcggcc aaagaggcct agtgttgagg agcctttaaa ctagagccca cgcttacctg 60
tgaagctgtg acgtctccta atgtggttgc tttgcgtatt caacttagga catttggttt 120
tactgttaaa ccacggtttt gtttgttgct tacagtttga caacttaaat gctgcgcatg 180
aaacctctaa gttggaaatt gaagctagcc actcagagaa acttgaattg ctaaagaagg 240
cctatgaagc ctccctttca gaaattaaga aaggccatga aatagaaaag aaatcgcttg 300
aagatttact ttctgagaag caggaatggc atctcgag 338

<210> 328
<211> 200
<212> DNA
<213> Homo sapiens

<400> 328
gaattcggcc aaagaggcct aatcaaagtt gaccgaaaga ttttgaaaat ccttaccagt 60
tgtttgtcat atgttaaagt cttatggtta attttattta ttttatcttg ttctcttgct 120
ggttattggc agactcagtc tttctgtttt cacaaagaac tcatgaagag gacgataggg 180
aaacccacgt gtcactcgag 200

<210> 329
<211> 259
<212> DNA
<213> Homo sapiens

<400> 329
gaattcggcc aaagaggcct aattaattca aagacctgta ctaacattct gaaatatctg 60
ctagccgtaa taaaaaaatt aatgtacttt atgttcttag ctcccacaat ttagcctaaa 120
tatttgccct agcatgctta tactgaatcc aagcaaacat tgtcatagcc gttcctcttc 180
tttatttaaa agcgttttta cctttctcag catcctgcaa gttacttcct ccttcctttg 240
ttctcctcta cctctcgag 259

<210> 330
<211> 248
<212> DNA
<213> Homo sapiens

<400> 330
gaattcggcc aaagaggcct acctaaaccg tcgattgaat tctagacctg cccaaaatat 60
atctggtacc caatttcata ggttccattt tctaaacatt attttataag ctcttatctt 120
tgacgtcatt gcttttactt taggccatca acatttcctt ctgcactatt gttactgccc 180
tgccttatag ctttgagaat ctcctcattg ccaagtggaa ccccatgttt tttagaaatt 240
tgctcgag 248

<210> 331
<211> 137
<212> DNA
<213> Homo sapiens

<400> 331
gaattcggcc aaagaggcct aatttagggt cgttttcagt cttgatacca cagagaatgt 60
tgcatttgat aacctacata tgttgtttca tgtgtatagc tgtatgtagc gggtcagtac 120
gtgatgcgga actcgag 137

<210> 332
<211> 213
<212> DNA
<213> Homo sapiens

<400> 332
gaattcggcc aaagaggcct actgttaaat tatcctctat taaacatttt tccacttatg 60
gtttcttttc taacttcagc tgccccagcc aagtgccact cttcctttgg tactttgttc 120
cttttagaag tatcttttgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtca 180
tatgcaaatg acaaggcaaa atggcaactc gag 213

<210> 333
<211> 266
<212> DNA
<213> Homo sapiens

<400> 333
gaattcggcc aaagaggcct agaatctgac ctgccagttt tgtttttaga agaacagaat 60
ttagtggatc agtttttttc aggatgcagt atcttttgtt gatcactctt tttcttcatg 120
tacaggctcc aatggctttg ttttaccccg caacttttgg aatcgttgga cagaaaatga 180
cgactttgca gcacagatct cagggcgatc ctgaggatcc tcacgatgaa cattacctgc 240
tggccacaca gagctgtgtt ctcgag 266

<210> 334
<211> 215
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (115)

<220>
<221> unsure
<222> (150)

<400> 334
gaattcggcc aaagaggcct atgagtaaca ggtactgtat gtttagcatt ttgaggaacc 60
accaaactct tctccaaagc agtggtacca ttttacattc ccaccatcag tgcangtggg 120
ttctgattct ctatatcctt gccagccctn gttattctac tggttgtgaa gtggtatctc 180
aggtggtttt ggtttgcatt tcccccccc tcgag 215

<210> 335
<211> 384
<212> DNA
<213> Homo sapiens

<400> 335
gaattcggcc aaagaggcct aggcagacca actggcccaa aacagagctc cttttcttct 60
ttgttctgcc tggactggtt ctttaaccct ttctcctatc tctttctcct cttgatgtta 120
aatgttactt tgtcatggaa tgtttaactt gtaacattta tatattgatt aattatacta 180
ttatgtatgg tttacaatat tgactggctt gcgtgcccac agctctgact actgagtgaa 240
caggaagtac tgttagctgt ggaaggtata cagatcatca gcagtaaatc catacaggcc 300
tgaagcaacc tcaattcttg cctcctcaga agaaagaatt ccactgaggg gcataaggca 360
gaaggagaaa ccgcggatct cgag 384

<210> 336
<211> 207
<212> DNA
<213> Homo sapiens

<400> 336
gaattcgcgg ccgcgtcgac tcatctcttt ccccctttttt acctcatgcc aggtcccaag 60
aagaatcacc acctttggca gaaaatgatg gtaattttta ttttatttta tttatatttt 120
tttgagacaa gatctcgctc tgtcacccag gctggagtgc agtggcgtga tcacggtgca 180

ctgcggcctc aacctcttgg gctcgag 207

<210> 337
<211> 167
<212> DNA
<213> Homo sapiens

<400> 337
gaattcggcc aaagaggcct acaggaacat ctactgggga tgactgttag gcagcttgtg 60
atgatgtttt ttaaaaaacc taagtaactt ggggagacag agcatttcaa acccatatag 120
acacctatca tacctgtata tcccctaata catggcgcaa actcgag 167

<210> 338
<211> 153
<212> DNA
<213> Homo sapiens

<400> 338
gaattcggcc aaagaggcct actcaggact ctctcaatga aactgttttt aaatttttct 60
ggtagatgct tgcagagcag agagtgggat ttcctggttt tctatggctt ctttgctgtt 120
gtctctgtat gtgagttcat accgcaactc gag 153

<210> 339
<211> 184
<212> DNA
<213> Homo sapiens

<400> 339
gaattcggcc aaagaggcct agccaaagaa catctgaggt aggtaacacc tgcatgtgaa 60
aaactgtgat atgaatctta tttataaaaa agtcataact aaaacccttc tagaccaaaa 120
agttactgtg tgtttgttaa taatcttcat agtactattg gaatgctcaa tcagtcaact 180
cgag 184

<210> 340
<211> 226
<212> DNA
<213> Homo sapiens

<400> 340
gaattcggcc aaagaggcct agtcttctag aagttttata gttttaggtt tttacattta 60
gtttctttca ttcttgagtt aatttttgca tatggtacag ggtagggatc aaagttcgtt 120
ttttggccta tggatgttaa attgtttttg catgactttt tgcaaagacc atcctttctc 180
cactgaattg tctttgtact tcaaaaatca gttgtccaca ctcgag 226

<210> 341
<211> 231
<212> DNA
<213> Homo sapiens

<400> 341
gaattcggcc aaagaggcct aattttgtat ttgaagatta tttatatcag gtattacttt 60
gtttttcccg ggatacatct gtgttgagtc actttgcatt caacagtgcc tcgccaccaa 120
aatcatacat aagaggaaaa ctaggactgg aagaatatgc tgtcttttac ccaccaaatg 180
gtgttatccc ttttcatgga ttttcaatgt atgttgcacc acgagctcga g 231

<210> 342
<211> 152
<212> DNA
<213> Homo sapiens

<400> 342
gaattcggcc aaagaggcct aggaaaagat aaaagaaaac tcttgagatt tttgagtgtt 60
gttggttgtt gttttctccg ttcagtttct ttctttttat aacttggatt atgaaactaa 120
actttaaccc aaaattaacc ctgttactcg ag 152

<210> 343
<211> 235
<212> DNA
<213> Homo sapiens

<400> 343
gaattcggcc aaagaggcct acctgcccac aaccaactct aataaatttt ataacattac 60
tagtacgcac agatatatat gaataactaa aaaagtttaa ggaagtgata tttaccctta 120
ctacatatga cacgtgatga tattgctatt ctattttact ctttttttatt ttttcagact 180
cggtctcact atgttgccca gactggagtg cagtggctat tcccaggtac tcgag 235

<210> 344
<211> 156
<212> DNA
<213> Homo sapiens

<400> 344
gaattcggcc aaagaggcct attggaaacg ttttggaact agatcgtggt gatggctgca 60
cgacattgtg agtataccaa acacctatgg attttaaact ttatttattt atttatttat 120
ttatttattt atttatttat gacaaagagt ctcgag 156

<210> 345
<211> 241
<212> DNA
<213> Homo sapiens

<400> 345
gaattcggcc aaagaggcct agggcacact ctttgctttg cttgcaattc cacactccca 60
cccatcataa catatttcgg aaaccttatt ccaattggtc cttcaagctc aaatgtcaac 120
tctacttcct cagaagaagg gtatatttta catattcctt agtgttctag aagttcttca 180
ttcacaccat cctgactgca ctgaacccac catggtatta tcagcaccag gcaatctcga 240
g 241

<210> 346
<211> 373
<212> DNA
<213> Homo sapiens

<400> 346
gaattcggcc aaagaggcct agtcgggtgt ggtggctcac ttgtgtaatc ccagcagttt 60
gggaggccga ggcaggtgga tcacttgagc tcaggagttc aaaaccagcc tgagcaacat 120
ggtaaaaccc tatctctaca aaaagtacaa aaattagcca ggtgtgattg catgcacctg 180
caatcccagc tactcaggaa gctgagggag gagaatctct tgaacccagg aggtggagac 240
cagcctgagc cacatagtga aaccccatct ctacaaaaaa tttaaaaatt agctgtgtgc 300
ggtcacgcgc acctgtagtc ccagatattg gagggcagtg gggggtggcg ctgaggtggg 360
aggatcactc gag 373

<210> 347
<211> 239
<212> DNA
<213> Homo sapiens

<400> 347
gaattcggcc aaagaggcct acgagcatga gtggggattt gtctctcatt ccctgggctg 60
gaagtacctt cctcctggct ctctgtgagg cccccctctt ttctctgttg tctgttttct 120

accagctcct gcttctccca tggggacttc tctgtcacct ggaatccctc ttcccgcacc 180
ccagctgact ctgagctctg ctaactctgt ccacccctgc caggcccttt ccactcgag 239

<210> 348
<211> 192
<212> DNA
<213> Homo sapiens

<400> 348
gaattcggcc aaagaggcct acgagagggg gggagaaagg aaattaaaaa ctgtgaacag 60
aataacgatc gttacttaaa aaatatgatg gtctctacca tgttagtaca ttttttgatt 120
caggtaacgg ttagtagaat gaaacattcc atgaatgaca tgttagttat taagcatgtt 180
agaaacctcg ag 192

<210> 349
<211> 279
<212> DNA
<213> Homo sapiens

<400> 349
gaattcggcc aaagaggcct aggctagtgg tggtctgccc cttcttttag tgggggatgt 60
attagcttca aaatcttcaa cagtgctttt ccttcctggc gactcttctc cagggtgctc 120
catgatcact ccactccctc catctaggat gtgccttaaa gctgggtcct caggggaaca 180
gacggtggtt ccactctcac tgctgcttag gtctaaatct tctaagtaaa ggatcttggg 240
ctgatgcatg cttttgatga atgttttctc cctctcgag 279

<210> 350
<211> 245
<212> DNA
<213> Homo sapiens

<400> 350
gaattcggcc aaagaggcct acaacatgta aaattagagg agaaatttag gtttagatta 60
attgcatgag aaataaaatt agaggacaaa tgttagtatc ttattttggt aatataaaat 120
taattaaaat tatattacta tcaacatctt atactatact ttttttttat tttcatgtga 180
gcctctcaac aacctgtaag gcaggcaggg aaggtgtaac tagtattact gcacatcccc 240
tcgag 245

<210> 351
<211> 263
<212> DNA
<213> Homo sapiens

<400> 351
gaattcggcc aaagaggcct agtacgttaa ggtggttggc cgctggccac taaattgttg 60
tagcaccact tgggaaaaga aaagatggat tttctgtcct taagcctctg gaaactacct 120
ttagccttta gagaattgtg agagaaacat gtttgaatat gaacttgtga gttcctatgg 180
agaaaaaagg tcaatgtaaa atctagcacc aggatatatt tattagagat atgaattgta 240
ctttgctaca ggagaacctc gag 263

<210> 352
<211> 251
<212> DNA
<213> Homo sapiens

<400> 352
gaattcggcc aaagaggcct accggaagtg tggcttcgtt tacagttcgg cacgtaggac 60
ggagggtagt gcgtctagag acacatattc ccaacggatt tgacgatggt gttcggtctt 120
gaatggaaat gtagtcttag gccagtctta ggtttttgaa caggatagta gctatccgga 180
gtcgattgag ggccagagca ggcactgggg ttcggatcct gggcaaagtt tcccacgttg 240

agggtctcga g 251

<210> 353
<211> 302
<212> DNA
<213> Homo sapiens

<400> 353
gaattcggcc aaagaggcct actctgtttc aggaagaggt gtcactcttt gcaaaggcaa 60
actcctcttt atctggttac tcttctccca actcttaaat gtatttcctg ccacgttcta 120
ttttagagct ttctctgtt ggagcagcag ccactttttt tgaggcccat ttaaacctct 180
ctccagtctg tttaggggac ttcagtagtt ctttgttgag catgcacccc acatggtgcc 240
cactgccagg cactggggat gcagagacaa agagttccca ctcacccacc acagcactcg 300
ag 302

<210> 354
<211> 207
<212> DNA
<213> Homo sapiens

<400> 354
gaattcggcc aaagaggcct actttttcta attgatttgt ctttttctat atagtctaga 60
taccaatcct ttgttatgcg agctgcaaaa cctctcagac tgtttttctt tttttctttg 120
tttatgcagt cttgctattt gtcatttttt tgctgtatgt ttttcttgtt taggaaatca 180
tcctcatccc aagttcatat actcgag 207

<210> 355
<211> 175
<212> DNA
<213> Homo sapiens

<400> 355
gaattcggcc aaagaggcct acagtttttt tatgtttatt cctaagtatt tcttacttta 60
agatctctag caaatggaag tgttttttaa ttttcgttta aatttttat tgtttatgga 120
aattcaatta atttttggtg ctgctattgc attgtgcaaa tccactgaac tcgag 175

<210> 356
<211> 326
<212> DNA
<213> Homo sapiens

<400> 356
gaattcggcc aaagaggcct actttaactg ggcaggcgcg tgctctgata aaacatggga 60
attttaatac taaaggaaga aagggagagt gaatattctg ggacaacaag cagactctgc 120
cacaggcaat gaccacccta accctgggga agatgcagat gccttcccca tcatctaatt 180
aattcaccat ttattgagca tggactttgt gccagatatt gtgcacaaca cacaggttct 240
tcctttaggc ctcctcctta cagtctagaa ggggcagaca gactgatgaa cacccagggt 300
gctcagggtt cctggggctg ctcgag 326

<210> 357
<211> 462
<212> DNA
<213> Homo sapiens

<400> 357
gaattcggcc aaagaggcct aataaaatat atgaagctcc tttttttact ttgctctgtg 60
actggtttaa aggtaagttt gttatgttgt tggtagattt tgccaggctt ctcccaacag 120
agtagaagtg atttggcctc ataacttcac agtggtttac cactttgttc tatgttctgg 180
ttttgtaaag gatagtactg gaatttgcgt ctgaagacca atattggtgt aactcctgtc 240
agtatattgg taaaatgtag cagaggcagg agtttggatg tttggatggg attcccttag 300

gattctacag ccaataaaga tcctatttcc tatgcatgtc ccaggaatca gtaatcctct 360
tttactctgt tgggatgagt cttttttgt ttctgttcag agtggttact aacttcacct 420
tctttcctca aaccgtcgat tgaattctag acctgcctcg ag 462

<210> 358
<211> 220
<212> DNA
<213> Homo sapiens

<400> 358
gaattcggcc aaagaggcct agtttccttt ttagatctgc tactctgttt ggataatgtc 60
ttattcctta tgttttggtc ccatctttca tggttttatt tttatttata ttttaggttt 120
tgagacaggg tcttgctctg ttcaccaggc tggattgcag tgtccaccgt cttggctccc 180
tgcaacctcc acctcttggg ctgaagcgat ccccctcgag 220

<210> 359
<211> 221
<212> DNA
<213> Homo sapiens

<400> 359
gaattcggcc aaagaggcct agttggggga caaattgaaa ctcttgtctc aaaagaaaaa 60
aaaaaagaat gagaccttct catatactgc tggtgggaat atatggtaca gatatattga 120
ataacaattt gttactaccc aataatgtca aaatatgtta cacgacccag caatcccact 180
cctacctaca tgcccttaaa actctcacac atggactcga g 221

<210> 360
<211> 223
<212> DNA
<213> Homo sapiens

<400> 360
gaattcggcc aaagaggcct acttttatca aagtcaaaat aatttatttg atatatagag 60
agccacactc cagctaatga attattgttg ttcattttac agcatctcag atataaaaaa 120
tttggttgca tcctacatgt cttttttttc tatcttgttc ctcctgtccc ttcctctgat 180
tcttgttgtc ccccctactt ttattttagg ttcagaactc gag 223

<210> 361
<211> 226
<212> DNA
<213> Homo sapiens

<400> 361
gaattcggcc aaagaggcct aattttttttt tagttctttc tgttttccag gtaccgttct 60
cagtgattgg tacttagtag ctcatttcat tttcatgata cctccataag gaaggtatat 120
tattgtttac attttacagg tgcagaaact gagcacaggt gcacaacatt cccaagctca 180
cacagctaat aagtagagga acatgaagta caaggcctgg ctcgag 226

<210> 362
<211> 457
<212> DNA
<213> Homo sapiens

<400> 362
gaattcggcc aaagaggcct aaatttaata tttgttacaa cattcatgca tatgatcagt 60
ggattttttt gttgttgttg aggagggtaa attttaaaaa agaattggta tataaaacag 120
atgcattaaa acagtggtgc ccaacctttt tggcactagg aaccagtttt gtggaagaca 180
gttttttcat ggacctgggg tgggatgagg tggtggatgg ttttaggatg attcaactgc 240
attacattta ttgtgcactt tatttctgtt attattacat tctaatatat aatgaaataa 300
ttatactgct cgccataatg tagaatcact gggaaccctg agcttgtttt tctgaaacta 360

catggtccca tctggaggtg atgggagata gtgacagatc atcaggcatt agattctcat 420
aagaaacagg cagcctagat ccctccccggc actcgag 457

<210> 363
<211> 356
<212> DNA
<213> Homo sapiens

<400> 363
gaattcggcc aaagaggcct actgtcttca caaaaataaa caaacaaaca aataaaataa 60
ataatacctt ttattattta cctctgatct attcctatta cagttccgca ttcagtgtaa 120
tttcccctag gggtaactgc aatttcattt ttttaatata cccaacaaag agctgtagct 180
ccctcctgtc tgcagatcag tgtttatagg acagaatata atattctact atgctaactt 240
taccttttac ccttttctta gcacgtgcac acacatgtgt gcacatactg tcagagtccc 300
tatttctctc tctctacaca ctgccagtct ctctccccttg tcccgcgcag ctcgag 356

<210> 364
<211> 213
<212> DNA
<213> Homo sapiens

<400> 364
gctaaaccgt cgattgaatt ctagacctgc cacccctaaa atatcaagct cattcacttt 60
ttaaaaaaat tcctttcaga ctctatatca caaatgtatg gttttcttgt tttgtttttt 120
gagacagtcg cactctcgcc caggctggag gcagtggcac aaactcagct caccgcaacc 180
tccacttccc gagttcaagc gattcccctc gag 213

<210> 365
<211> 280
<212> DNA
<213> Homo sapiens

<400> 365
ggtcattttt aaaattgggg acccccagat gtcagtattt gtagatattg tctcagggaa 60
ctataagctg ggtgtaggca tttgggaact ggatgaagta atattttgct atgcagactt 120
tcacttaatc catatttgta tttgttttat tttactttat ttttttgaga cagagtctcc 180
caggctgggg tgcagtggta gaatcacagc tcactacagc cttgacctgt ccggcacgag 240
tgatcctttc acctcggcct cccgagcagc gggactcgag 280

<210> 366
<211> 174
<212> DNA
<213> Homo sapiens

<400> 366
gctcagactc ttggaagggg ctatactaga cacacaaaga cagccccaag aaggacggtg 60
gagtagtgtc ctcgctaaaa gacagtagat atgcaacgcc tcttgctcct gccctttctc 120
ctgctgggaa cagtttctgc tcttcatctg gagaatgatg cccccccttct cgag 174

<210> 367
<211> 532
<212> DNA
<213> Homo sapiens

<400> 367
catggagttt gggctgagct gggttttcct cattgctctt ttaagaggtg tccagtgtca 60
agtacaactg gtggagtctg gggggcggcgt ggtccaacct ggggggtccc tgagactctc 120
atgtgcaaca tctggattca ccttcagtga tttcggcatg cactgggtcc gccaggcgcc 180
aggcagggga ctggagtggc tgtcttttat tcgctttgat tcaagtaatg aaaactatgc 240
agactccgtg cagggccgct ttgccgtctc cagagacaat ttcaaggaca cactgtatct 300

acaaatgaac agcctgactg ctgacgacac ggctgtctat tactgtgcga ctgggaagat 360
agcagccgcg ggtaccccat ttgactattg ggccggggga accctggtca ccgtctcttc 420
agcctccacc aagggcccat cggtcttccc cctggcaccc tcctccaaga gcacctctgg 480
gggcacagcg gccctgggct gcctggtcaa ggactacttc cccgaactcg ag 532

<210> 368
<211> 229
<212> DNA
<213> Homo sapiens

<400> 368
ggcctgatcg tgtctgtaga tgaaaccatc aagaaccccc gctcgactgt ggatgctccc 60
acagcagcag gccggggccg tggtcgtggc cgccccccact gagaggcacc ccacccatca 120
catggctggc tggctgctgg gtgcacttac cctccttggc ttggttactt cattttacaa 180
ggaaggggta gtaattggcc cactctcttc ttaccggagg ccactcgag 229

<210> 369
<211> 350
<212> DNA
<213> Homo sapiens

<400> 369
gagcaggagt acagttctga agataacttt ctttaaaaaa ggaaattcat aaaatatcat 60
gcatcttcct tttttgacac taatggaaca atttaatgta atttcagagg gaagcagagc 120
ccctggaaag gctggtgtga taagggaagg ttacccagct ttcctgtcag gcggtgtgtg 180
ggagcagaga gtggcattct ctgcatactc ttggggagaa gagtgggtga gacaggctgc 240
tcagggctgg ggcagagccc aggggaaggg gatggaaggg gaagaacagc ccttcaagag 300
tcctgcagaa attggtggaa gttatttaaa cagaagtgtt cgggctcgag 350

<210> 370
<211> 155
<212> DNA
<213> Homo sapiens

<400> 370
ggacatagtc ccagcctggg ttgagagagc aaaaccctgt ctcaaaaaca aaacaaaact 60
cttcttaaat atcaatttta tttgtttaga cagcgaggca ggtatttttt aacacatatg 120
ccactgctat gttttatatt cgtaccatac tcgag 155

<210> 371
<211> 228
<212> DNA
<213> Homo sapiens

<400> 371
ggttttctac ctaaaagggg aaaatttttct ataaaaagat tccacgtccc tctttagaaa 60
aataaagcta ctttaaaaag cccgtttatt tttgaaaccc caacaggctt ctcaaaactg 120
ctgtcattcc taaatacgaa gtcttaaaaa atccacatgt cctcctcagc cagaggccta 180
tggacagcac aaaatacagg ggaatgtcgt ggtggcggct gcctcgag 228

<210> 372
<211> 268
<212> DNA
<213> Homo sapiens

<400> 372
ggacctcctg tgcaagaaca tgaaacatct gtggttcttc cttctcctgg tggcagctcc 60
cagatgggtc ctgtcccagg tgcagctgca ggagtcgggc ccgggactgg tgaagccttc 120
ggagaccctg accctcacct gcactgtctc tggtgattcc atcagtaatt cttattggag 180
ctggatcagg ctgcccccccg ggaagggact ggaatacatt ggatatgtct tttacaacgg 240

ggacaccaat tccaacccct ccctcgag 268

<210> 373
<211> 480
<212> DNA
<213> Mus musculus

<400> 373
gaattcggcc aaagaggcct acctggtttg tgaattatgg cctggatttc acttatactc 60
tctctcctgg ctctcagctc aggggccatt tcccaggctg ttgtgactca ggaatctgca 120
ctcaccacat cacctggtga aacagtcaca ctcacttgtc gctcaagtac tggggctgtt 180
acaactagta actatgccaa ctgggtccaa gaaaaaccag atcatttatt cactggtcta 240
ataggtggta ccaacaaccg agctccaggt gttcctgcca gattctcagg ctccctgatt 300
ggagacaagg ctgccctcac catcacaggg gcacagactg aggatgaggc aatatatttc 360
tgtgctctat ggtacagcaa cctttgggtg ttcggtggag gaaccaaact gactgtccta 420
ggccagccca agtcttcgcc atcagtcacc ctgtttccac cttcctctga agaggtcgag 480

<210> 374
<211> 271
<212> DNA
<213> Mus musculus

<400> 374
gaattcggcc aaagaggcct actcaactgt tgctttaaaa tcttaatatt tccatcactt 60
ataatttctg acgtagatga gagttctgac caccaccttt ttattactgc ttgaagccag 120
tttaaaccaa caattacata ttcttcaaat ctgctttgaa gtaaagactt taccagagga 180
agtaagtcta cacagcagcc aagtgagata tactgctttt cttcctgtaa actattggtt 240
agaacaggaa ggcaatctac aacaactcga g 271

<210> 375
<211> 423
<212> DNA
<213> Mus musculus

<400> 375
gaattcggcc aaagaggcct aaggatgttt gctagcttcc ccaccaccaa gacctacttc 60
cctcactttg atgtaagcca cggctctgcc caggtcaagg gtcacggcaa gaaggtcgcc 120
gatgctctgg ccaatgctgc aggccacctc gatgacctgc ccggtgccct gtctgctctg 180
agcgacctgc atgcccacaa gctgcgtgtg gatcccgtca acttcaagct cctgagccac 240
tgcctgctgg tgaccttggc tagccaccac cctgccgatt tcaccccgc ggtgcatgcc 300
tctctggaca aattccttgc ctctgtgagc accgtgctga cctccaagta ccgttaagct 360
gccttctgcg gggcttgcct tctggccatg cccttcttct ctcccttgca ccagtacctc 420
gag 423

<210> 376
<211> 333
<212> DNA
<213> Mus musculus

<400> 376
gaattcggcc aaagaggcct actgtctcgg tgccagtacc tctgggatgg cctcacaaaa 60
ccgcgaccca gctgctgcca gcgttgccgc ggttcgaaaa ggagccgagc cctgcggggg 120
cgccgcccga ggccctgtgg gcaagcggct acagcaggaa ctgatgatcc tcatgacatc 180
tggtgacaaa ggaatctccg ccttccctga gtcagacaac ctgttcaagt gggtggggac 240
catccacgga gcagccggca ccgtatatga agacctgagg tacaaactct ccctagagtt 300
ccccagcggc taccettaca acgcggactc gag 333

<210> 377
<211> 271
<212> DNA

<213> Mus musculus

<400> 377
gaattcggcc aaagaggcct actcaactgt tgctttaaaa tcttaatatt tccatcactt 60
ataatttctg acgtagatga gagttctgac caccaccttt ttattactgc ttgaagccag 120
tttaaaccaa caattacata ttcttcaaat ctgctttgaa gtaaagactt taccagagga 180
agtaagtcta cacagcagcc aagtgagata tactgctttt cttcctgtaa actattggtt 240
agaacaggaa ggcaatctac aacaactcga g 271

<210> 378
<211> 377
<212> DNA
<213> Mus musculus

<400> 378
gaattcggcc aaagaggcct agcggactgg agctgaaagt gttgattggg aaacttgggt 60
gattcttgtg tttatttaca atcctcttga cccaggcagg acacatgcag gccaaaaaac 120
gctatttcat cctgctctca gctggctctt gtctcgccct tttgttttat tttggaggcg 180
tgcagtttag ggcatcgagg agccacagcc ggagagaaga gcacagtggt cggaatggct 240
tgcaccagcc cagtccggat catttctggc cccgcttccc ggacgctctg cgccctttct 300
ttccttggga tcaattggaa aacgaggatt ccagcgtgca catttccccc cggcagaagc 360
gagacgcgga tctcgag 377

<210> 379
<211> 390
<212> DNA
<213> Mus musculus

<400> 379
gaattcggcc aaagaggcct atggaatttc ctcagcttta tcttgtcttg ctttgaagtt 60
ttgctcaatg ttcctccctt ccgaccactt ccacttaaat aaagtcttta agtagctgaa 120
ggattaacag tctggtggga ggcaagccat tgaactgaac cacgaggaaa gtatattttc 180
ttctttcttt ttcctgccaa gttttcggtg gcatttgtag aagctggtgt gaaaggctag 240
gaggcattgt tttctattat tcctcggtga agccttttcc cagagcatat gtctccggca 300
ggcagtgtgg gttcttgcca agcatcagaa ccagtctcca gggcctcccg acgccgatcc 360
atagtactgt acagacccac cggactcgag 390

<210> 380
<211> 435
<212> DNA
<213> Mus musculus

<400> 380
gaattcggcc aaagaggcct acagggacca cacagaaaaa ggcctcgcta aagcaacaaa 60
cctgatcatt ttcaagaacc ataggactga ggtgaagcca tgaagtgctt gctgatctcc 120
ctagccctat ggctgggcac agtgggcaca cgtgggacag agcccgaact cagcgagacc 180
cagcgcagga gcctacaggt ggctctggag gagttccaca aacacccacc tgtgcagttg 240
gccttccaag agatcggtgt ggacagagct gaagaagtgc tcttctcagc tggcaccttt 300
gtgaggttgg aatttaagct ccagcagacc aactgcccca agaaggactg gaaaaagccg 360
gagtgcacaa tcaaaccaaa cgggagaagg cggaaatgcc tggcctgcat taaaatggac 420
cccaaggggc tcgag 435

<210> 381
<211> 321
<212> DNA
<213> Mus musculus

<400> 381
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tgctgcacag aaactcgtcc gagagtgaag agaggctgaa gtaatagctc aagtagatac 120

atgccaacag tataaccaca aatgtcacca gccggcagct aatgtatttc atgattaaat 180
gactagagtt ctttttgtc ttcaagtact gctccacgat tgggtacttg aagtggcttt 240
cagatatctc ccacagactc tgccccacat tctcagtcac tcctgggggt ccaggtccgt 300
ctcttaggtc caaatctcga g 321
<210> 382
<211> 223
<212> DNA
<213> Homo sapiens

<400> 382
gaattcggcc aaagaggcct acgactacag acacagacgg tgccgccgag acttgtgtct 60
cagtacagtg tcagaagcaa attaaagaac ttcgagatca atgtttatct cttcagttat 120
tacatctggt cccagcttgg ccatgtacaa catgctgatt cttttcaacg ttttattttc 180
tttatttagc tttgttgcca aagcttcagc actttctctc gag 223

<210> 383
<211> 258
<212> DNA
<213> Homo sapiens

<400> 383
gaattcggcc aaagaggcct acagaaacat ctcaaggtag ctggtccgcc cccacttccc 60
catctacctc ttgtcctccc cccaacacca ccaccaccct ggctcccctc cctcatgacc 120
gcctggatcc tcctgcctgt cagcctgtca gcgttctcca tcactggcat atggactgtg 180
tatgccatgg ctgtgatgaa ccaccatgta tgccctgtgg agaactggtc ctacaacgag 240
tccaaggttc tccctata 258

<210> 384
<211> 207
<212> DNA
<213> Homo sapiens

<400> 384
gaattcgcgg ccgcgtcgac agtgaaattc ggtgttatgt taatggacaa ctggtatctt 60
atggtgatat ggcttggcat gttaacacaa atgatagcta tgacaagtgc tttcttggat 120
catcagaaac tgctgatgca aatagggtat tctgtggtca acttggtgcc gtgtatgtgt 180
tcagtgaagc acccaaccca gctcgag 207

<210> 385
<211> 193
<212> DNA
<213> Homo sapiens

<400> 385
gaattcgcgg ccgcgtcgac acaagatgtg gacagctctt gtgctcattt ggattttctc 60
cttgtcctta tctgaaagcc atgcggcatc caacgatcca cgcaactttg tccctaacaa 120
aatgtggaag ggattagtca agaggaatgc atctgtggaa acagttgata ataaaacgtc 180
tgaggatctc gag 193

<210> 386
<211> 212
<212> DNA
<213> Homo sapiens

<400> 386
gaattcgcgg ccgcgtcgac catagaataa ttgtgccctt agtcattcac tggtccaaca 60
gtgtcctttc ttattttctt aagatattta tataacagat gcataattac agatatttat 120
gtaacagatg cataataatc ctaatatcca tattgggtac tctttcctcc tttccaaatt 180
tgtttagctt tccaccaccc ccccagctcg ag 212

<210> 387
<211> 227
<212> DNA
<213> Homo sapiens

<400> 387
gaattcgcgg ccgcgtcgac gtgaaaggta gaagggcagg gcagagtatg tactgttttg 60
tgtgtgtgtg ttattttttg agactaagtc ttgctctgtc acccaggctg gagcggggtg 120
gtgtgatctc ggctcactgc aacctctgcc tcccaggttc aagcaattct cctgcctcag 180
tctcctccct agtagctggg attacaaacg cccaccaccc actcgag 227

<210> 388
<211> 163
<212> DNA
<213> Homo sapiens

<400> 388
gaattcgcgg ccgcgtcgac cacttattca gggatattgg agaagatatt ccactagaca 60
aagatttctg aaattgaaat attattcaat catcctgcaa tctaggataa gaatgataat 120
tgctgttaca tcttataaac gatatctttg ggctacgctc gag 163

<210> 389
<211> 223
<212> DNA
<213> Homo sapiens

<400> 389
gaattcgcgg ccgcgtcgac ccaccacctt cctgtcccct gtgactgcct cgcaactggg 60
tctgttctgt gagatgtcgc caccctgttt gccatctggg aggatctcac tccttcaatt 120
taatctgctc tcttccgtta ttttttagt ttctatgtat tttactttta ggacattcct 180
tggactttgt tctacctctt taattgatga agaaaacctc gag 223

<210> 390
<211> 185
<212> DNA
<213> Homo sapiens

<400> 390
gaattcgcgg ccgcgtcgac ctccatctcc aaaaaagaaa aaaaatgtat tctcttagca 60
aatttccagt ttataataca gtattattaa ttatagtcct tatggtgtac attagatctt 120
tagacttact cttcttatat atatgtaact ttacatcctt ggacctacat ctcccctgcc 180
tcgag 185

<210> 391
<211> 221
<212> DNA
<213> Homo sapiens

<400> 391
gaattcgcgg ccgcgtcgac gagaaagtca taattcatta gatatgtttt aattattgaa 60
tttgttagac tctaaccttg aagtactaac taagcttgct ataaatatac tgtttctcat 120
ctttgctgtc taccttgttg ttaatggaga gtcactttgt agaaaaaaat atactgtttc 180
tcatctttgc tgtctacctt gttgttaatg gagagctcga g 221

<210> 392
<211> 219
<212> DNA
<213> Homo sapiens

<400> 392

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tcaagattca gctgaatctg taggtaaatt tgagttgtat tgccatctta ataattttaa 120
atcttccaat tcatgagcat ggaatgtttt ttcctttatt taggaattct ttattttttt 180
ccaactgtgt tttgtagttt ttgtatgcag gttctcgag 219
<210> 393
<211> 155
<212> DNA
<213> Homo sapiens

<400> 393
gaattcgcgg ccgcgtcgac ggggtaagaa gctgccggct gaactaatac tgggttatta 60
tacttgtttc cttcagaact ctgtggtcat tggtccatct tctgacattg aactctgcta 120
tgaagtccaa ggttaacctc atcctcctgc tcgag 155

<210> 394
<211> 157
<212> DNA
<213> Homo sapiens

<400> 394
gaattcgcgg ccgcgtcgac caaaatttga atcctaagag cttgttacat ataaatatta 60
acagtttacc ctttatgata tgagctacag atattgtcct cagttgtgtt ttcttttgac 120
tttgctaatg ttttattctt gccatgcaga gctcgag 157

<210> 395
<211> 231
<212> DNA
<213> Homo sapiens

<400> 395
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tttggcttaa gtaaataaca tttttttaaa cccactattt tgagcgttca gtggtctgta 120
acagtgtgtt ataccataag aactggtatg aagtggttaa ctactagttt aataatagtt 180
gaagcctggg cgtggtggct cacgcctgta atcccagcgg ggaggctcga g 231

<210> 396
<211> 183
<212> DNA
<213> Homo sapiens

<400> 396
gaattcgcgg ccgcgtcgac ccacttcatt tttaagaaag gaagcaacag atagatgttg 60
ctctttcacc tgggtgtctg ggctcaagct ttcccgccca gcctcacttc ctttgccctt 120
cctcctgcct ttctcaactg tcccaaggag gggcctcat tgtgtctccc gtgcacgctc 180
gag 183

<210> 397
<211> 213
<212> DNA
<213> Homo sapiens

<400> 397
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ttaatcacat aactgtaacc ttctgtctac tcagggcaaa ctaactttaa gatgaaacct 120
aaagaatgga tttttcattt tttactacat ttgactgtaa atacagacag cttgataata 180
ataacatatg ctgtggaatt ccccaatctc gag 213

<210> 398
<211> 153
<212> DNA

<213> Homo sapiens

<400> 398
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ttggtttatt tttttttctt tttcttagca aagaagtact ttgagtatgt cctagaacaa 120
tatttttcaa gatgctctcc ctggtcactc gag 153

<210> 399
<211> 288
<212> DNA
<213> Homo sapiens

<400> 399
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ttacttcagt gttgatgaca gtaataagaa tagtatctat agaataacta gttttaaagt 120
tttttactaa aaattcattc tcaatttaat aactagagag ttacagtatt ttttttcagc 180
atgtatttta gtttgtttta tcaccttaat ctccctaata gtcctgcaaa tgtagtactt 240
gttctaacca tactgggatc ccacattata ttagcatatg ggctcgag 288

<210> 400
<211> 203
<212> DNA
<213> Homo sapiens

<400> 400
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gaatctgaag ttttagaaag taggaaaaaa ttacccacaa cccttaggat attgatcctt 120
ctaaaatatt taattttta aacactttc attttgtttt ccatctcatt tcaatgcata 180
ttctttttaa cagaatactc gag 203

<210> 401
<211> 193
<212> DNA
<213> Homo sapiens

<400> 401
gaattcgcgg ccgcgtcgac cttgctgcat acagatctgt tgaaagtctc cgtgcatgtt 60
aaaccatcca ctctgtaggc aagtgcttgt aggtgtcctc actttccaga tgaagtcact 120
gagaagacaa gaggttcaga cacttgccca acctctagta agtgacggag ctgagatcca 180
aacgcgtctc gag 193

<210> 402
<211> 284
<212> DNA
<213> Homo sapiens

<400> 402
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tatcccccat tttacaaaag aggaaactga ggcacagaga agttgagtga cttgcacaag 120
gtcatactaa taaatagcag agctgggatt tgaacccaga ccacggtcac caaactgtaa 180
agggctcaat ggtcaatatt tttggctttg tagtccatgc agtctctgtc acagtgactc 240
aaccctgctg ttggagcaca aaagcagaca taggccgtct cgag 284

<210> 403
<211> 168
<212> DNA
<213> Homo sapiens

<400> 403
gaattcgcgg ccgcgtcgac taaaaaagta atttagattt aaagttcttt gatgtatttg 60

atttctaaa tctttatggt tatgatttgg aataaaatgt gcctaatcct gtgttacatt 120
ctgttcttaa atctgaatgc cttctcattt aattctgagg gactcgag 168

<210> 404
<211> 189
<212> DNA
<213> Homo sapiens

<400> 404
gaattcgcgg ccgcgtcgac ataaattatg gtcctaagta tctttccatg acaaaaaaga 60
acccagtgaa tagaaaattt tattttcatt attatgatag cttattttct atatgtagat 120
atgtattttc tttttctttc tttttttttg agatggagtt ttgctctgtc gcacaggctg 180
gatctcgag 189

<210> 405
<211> 174
<212> DNA
<213> Homo sapiens

<400> 405
gaattcgcgg ccgcgtcgac gaatccatct ggtcctggtc ctggttctac attttgtagc 60
ttgtgagtat agaggtgttc ataataggtt ctgggaattt tttgtatttc tgtgaggtca 120
gtggtaatgt cctctttgtc atttctgatt ttgtttattt ggcgctccct cgag 174

<210> 406
<211> 234
<212> DNA
<213> Homo sapiens

<400> 406
gaattcgcgg ccgcgtcgac caaagtgctg agattatagg tgtgattcac tagctccagc 60
ctaaaatccc taaattctaa aatcccccaaa tcacaattct gagagaccaa aatttcaaaa 120
atataattgt ggaataaagt tttaaaaata tttaaaatac atttgttaca attttaaaag 180
aagactttag agacatataa atacatgact gaacacatta taggtccact cgag 234

<210> 407
<211> 196
<212> DNA
<213> Homo sapiens

<400> 407
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ctcactactt agcactcaag tagaagaaaa aaaaaaagac cattgaaaga gtgaagtcaa 120
gaaaatgaga ggcagggtga gggtggatta ccaagaagcg tatgaaaatc cccaagaatt 180
aaaacaggag ctcgag 196

<210> 408
<211> 232
<212> DNA
<213> Homo sapiens

<400> 408
gaattcgcgg ccgcgtcgac agatcacacc accacactcc aacctgggca acgtagaaag 60
gccccgtcta tatttttaat taattaatta attaaagttt ttttttaaag cactcatcat 120
aaaagaatat agcaaaatac caaaaaagga aaaataagcc aataaccaag tcaaaatgag 180
gtgtggagtt ctgactgtgt gtctttgggg cttcttccca tcaccactcg ag 232

<210> 409
<211> 232
<212> DNA

<213> Homo sapiens

<400> 409
gaattcgcgg ccgcgtcgac cacacacgca aatacagatt ttctgtccaa agcccaggca 60
gcatttctag atgtggccct ttgggagtaa catgctttcc cagtccttcc acctccatat 120
acttttcctc accctcctgg acagccagag cactctagag cagatatgca aaaagtcagc 180
tcaaatagac caagtagtgc cgaactgtcc caaagcacac gcacctctcg ag 232

<210> 410
<211> 159
<212> DNA
<213> Homo sapiens

<400> 410
gaattcgcgg ccgcgtcgac cctctgctta ctgtgacagt cgatgatgaa tcttgcgttg 60
ccattttctg ctgtgggtaa ctgcgtgcag tgtcttgcct tgctttctct tcttactgtc 120
ccacagcttg gtttcatgtt acaaacagaa aagctcgag 159

<210> 411
<211> 230
<212> DNA
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<400> 411
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tgatttattt cctttcactc tttttttgtc ttcttgtaag tctttgcctg agcttgaagg 180
tcgggagtag tttacacaat catcattatg ttgcatatgc tggtctcgag 230

<210> 412
<211> 181
<212> DNA
<213> Homo sapiens

<400> 412
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gtggtgaact ctctagttca ctataccttc gtctggctgg aggagtatga taatccaagt 120
gcctgctttt attttcttgt ctgcatgtat tttatatttc tgttttccca tcacactcga 180
g 181

<210> 413
<211> 166
<212> DNA
<213> Homo sapiens

<400> 413
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catatgtctt tagtttttcc taatacettt gttcatgctg ttctttcctt ctcctgagtt 120
gattacccgc ctccttcaac tgtactacat tcatacatct ctcgag 166

<210> 414
<211> 116
<212> DNA
<213> Homo sapiens

<400> 414
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attttatcat tttttccttt cttttttatt ttttaaattt tgagcatacc ctcgag 116

<210> 415

<211> 301
<212> DNA
<213> Homo sapiens

<400> 415
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tttgtgtatt ttctacaaac ttggggcctg ccttggtggc tgtcaaagtg tccttttttt 180
agagcagaaa gagttgcagg aaaacatgat gtggtgtttc atgcaacata gtggaaatgc 240
agttttaggt catcaggctg cacttcctct cagtccgcag ccccagagct caatactcga 300
g 301

<210> 416
<211> 355
<212> DNA
<213> Homo sapiens

<400> 416
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atatctttca caaataagac gatataaaga tattttcaga taggtgtata acattcgtct 120
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acctgagaga gaaagcatga ctctggaatc cacctgccat cagagctctc tccagaccag 240
tgctccttcc cttcctcacc ttcctgaatg cctcggcctg gcacctgaac tcccccatcgc 300
tgctgccacc ttccccccacc cacttctttc tctttcatgt gtgctactcc tcgag 355

<210> 417
<211> 177
<212> DNA
<213> Homo sapiens

<400> 417
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gaaagaaata taaaggaatc ataaagttga gcagataggt gctaagttga tcctgcttac 120
aatatttgag ataattctta aagtcattat accagtcttg atatgagggt cctcgag 177

<210> 418
<211> 151
<212> DNA
<213> Homo sapiens

<400> 418
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gccttattat ttgtcaatct tataaaaata tatgttaaga aacttatcta tatctacatc 120
tttaaaattt atgatgaggg cagggctcga g 151

<210> 419
<211> 260
<212> DNA
<213> Homo sapiens

<400> 419
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ctgtcttctg ctctgcattc gtagcctgtg gctttgtcat tccctcatct ggaaatggcg 120
gctgcagccc caggcacaat ggcccgttga ggaagaaggg ggacgatgtg cagtgtcagg 180
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gtcataggcc aggactcgag 260

<210> 420
<211> 174
<212> DNA

<213> Homo sapiens

<400> 420
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tttagttttc ttttaaaaag tcagttttaa agttgtataa attaaaaata tttttaaatt 120
tttaaacaga tgctccccct tcaacccact ctagttatta ccactctact cgag 174

<210> 421
<211> 190
<212> DNA
<213> Homo sapiens

<400> 421
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acaagccaaa attatctgct ggtgactgga actcacagac agaggcttgc tagccctttt 120
gcattgattg agaggctttt caaaattaat cattgctatg atttcaatat ctgttccccc 180
aaaactcgag 190

<210> 422
<211> 173
<212> DNA
<213> Homo sapiens

<400> 422
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gttctttttg agcagcttat ttgaaggtaa cctgcagagt taaaatgcat ttggcatcct 120
tcctaatgag agaccaaaaa tattttcact tggtgttcct gtggtacctc gag 173

<210> 423
<211> 214
<212> DNA
<213> Homo sapiens

<400> 423
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aaagccacct ggctctggta tcttctctta cagatcacct caacacttaa atcctcaaat 120
tctaacatat acatttctac ttattggcat ataaatgttg gtaaatgtac tacaatcatt 180
tcatgcaagg cagctgttgt ctacagtcct cgag 214

<210> 424
<211> 170
<212> DNA
<213> Homo sapiens

<400> 424
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cttccaacaa aattaatgaa taccatatta gtattataaa atattataaa gtaataatta 120
tatcatctat ataacttcaa agtatgatgt ttatacaaag aatcctcgag 170

<210> 425
<211> 187
<212> DNA
<213> Homo sapiens

<400> 425
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tcctcccaat cctgtcctct ctgtgtattt ggtaattgcg taaatcatct ctcccataat 120
taatctcctt taaaatttgg aataatatag ttgttagaat aatataataa tcatgcagaa 180
tctcgag 187

<210> 426
<211> 148
<212> DNA
<213> Homo sapiens

<400> 426
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tgccctgctc tgagcatcaa tgccttgtgc tgttctaaca ttttggtttt tttctgctgc 120
aatttcacgc ttggcccttt ccctcgag 148

<210> 427
<211> 204
<212> DNA
<213> Homo sapiens

<400> 427
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ccaaatgcag ggtaaggagt actgcagagg tcacagggaa gtcacagaac agtaatacgc 120
tagcaggggc atggggcgtg aagaacagaa gacaggaagc gtttcagaga ctccaaagaa 180
gaaatcaggg ccaaccaact cgag 204

<210> 428
<211> 216
<212> DNA
<213> Homo sapiens

<400> 428
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tttcatggta ttttttactt cataagaaac tatcaaactc aaccaaagag gctttgccac 120
tttgcatctc caccagtaat gtatgaggat tctagttgcc ccctatcctc acaaattagt 180
attgccagtc ttcccaattt tttcctccat ctcgag 216

<210> 429
<211> 214
<212> DNA
<213> Homo sapiens

<400> 429
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gttgacagac atgatgaaag ggaatgtaac aaatgtcctc cctatgattc ttattggtgg 120
atggatcaac atgacattct caggctttgt cacaaccaag gtcccatttc cactgaccct 180
ccgttttaag cctatgttac aacaagaact cgag 214

<210> 430
<211> 137
<212> DNA
<213> Homo sapiens

<400> 430
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atctgggtgt ctttacaagt acctttgagt gaagcaagca agctatgttt atccttcact 120
gtctttccct cctcgag 137

<210> 431
<211> 245
<212> DNA
<213> Homo sapiens

<400> 431
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aagatagctg aaaaagaaca tcactacctc cttaattctc tcattggaaa tttagtttta 120
attttctgat gcttaaaact ttctgtgctt cagtttttcc tttttataaa tgtttgatca 180
tatttaccat ctccctaatt atggtagaca taattatcat aattaggtct agccccagac 240
tcgag 245

<210> 432
<211> 248
<212> DNA
<213> Homo sapiens

<400> 432
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ctagaattat cgtttagttc aactttttaa atttatctat aaggaaacta agctctggaa 120
agatggaaag aaatcttcct agaccaaata agccacataa ggattctgta ttttatttgt 180
tttgtttttg tttattttt agtttgtttt ttcatgtaag gatttttaat cttccccacg 240
gactcgag 248

<210> 433
<211> 203
<212> DNA
<213> Homo sapiens

<400> 433
gaattcgcgg ccgcgtcgac gatataacca ttcctaggat ataccttaaa tatctctgaa 60
gtcagtattt ctcctgagat agagttaagt tggtttctcc ttcagttaaa gactccttgg 120
tagttttggt tagtttcaaa agtcattcag ctattgaaac aatgaaaaca ttacagcatt 180
tagtttccgt gattgtactc gag 203

<210> 434
<211> 218
<212> DNA
<213> Homo sapiens

<400> 434
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tattagctac tagtttcatt ttaacttagt taaggaggca taaaatgtta ttaaaggact 120
tatttttatt tatttattta ttgagacagg gtcttgctct gtcacccagg ctggagtgca 180
gtggtgtgat cataggtcac tgcagcctta aactcgag 218

<210> 435
<211> 239
<212> DNA
<213> Homo sapiens

<400> 435
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gggaatttag acccttgaca ttgaaagcta atatctaaat ctgaggtttt catcctatca 120
tgaaattgtt agctggttac tttgtagttt ctactttgtg gttgctactg tgtgcttgcc 180
ttataggacc tatgggctat gtacttaagt gtgtttttgt ggtagcaggt cgcctcgag 239

<210> 436
<211> 217
<212> DNA
<213> Homo sapiens

<400> 436
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gaatcaggaa aaaagtttta aaattcattt tttaaaaata agttcaggtt ataacattta 120
agaagtttaa tcttgttttt tcagacttgc agaaaatact ttagaaatgc tgactctaaa 180
atttatcttt catatgttgc tggtaggtag actcgag 217

<210> 437
<211> 160
<212> DNA
<213> Homo sapiens

<400> 437
gaattcgcgg ccgcgtcgac cttcattgat ctttttctct tcctgcatgg taatgagaac 60
tgcccgtttc acctccttta cctatcattt tcttccttac tgcattttca cagcatgcta 120
tttctctgag atgttccagc aagcaggcca agcgctcgag 160

<210> 438
<211> 180
<212> DNA
<213> Homo sapiens

<400> 438
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ctaatcttca agaggaattt gaggttcact tgaataagtt agactagttt gaggtgggtg 120
tagctagagg attgaagtcg taccaaaaaa aaaatgtatg tatatgtata tgtcctcgag 180

<210> 439
<211> 211
<212> DNA
<213> Homo sapiens

<400> 439
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aaagcagtct ccctcttatt tgtaagttta catttttagc ggaaactact aaattatttt 120
gggtggttca gccaaacctc aaaacagtta atctccctgg tttaaaatca caccagtggc 180
tttgatgttg tttctgcccc gcaccctcga g 211

<210> 440
<211> 264
<212> DNA
<213> Homo sapiens

<400> 440
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ttctctgcat ttcttggtgc agccacgatg tatacaagat acaaaatagt acagaagcaa 120
aatcaaacct gctatttcag cactcctgtt tttaacttgg tgtctttagt gcttggattg 180
gtgggatgtt tcggaatggg cattgtcgcc aattttcagg agttagctgt gccagtggtt 240
catgacgggg gcgctcttct cgag 264

<210> 441
<211> 174
<212> DNA
<213> Homo sapiens

<400> 441
gaattcgcgg ccgcgtcgac agacctgcct cgagactacc aaagtgctgg aattacaggc 60
atgagctacc gcgcccagct gacttgtaca gcttctatgg tgtgctttac atttttcctg 120
cttttgagca tttctgagag gcctcgtgtt ttcttttctt taacaaacct cgag 174

<210> 442
<211> 166
<212> DNA
<213> Homo sapiens

<400> 442
gaattcgcgg ccgcgtcgac tgaggcccga ggttctggga aggtgtacag gcagttaagt 60

ttcggggatg aagtggactg gcatatctcc atatattcag ttatttatat gtaattttga 120
aaactttgtt caggaaccta tttgtattga aagaacaaaa ctcgag 166

<210> 443
<211> 153
<212> DNA
<213> Homo sapiens

<400> 443
gaattcgcgg ccgcgtcgac tctgctttta ctgcatctca caatttttga tatttttcag 60
ctcactcagt ttagtgtatt tttatttttc ttgagactct ctatgaaata cacatcattc 120
agatatatgt tgtttagtgt ccaagtactc gag 153

<210> 444
<211> 236
<212> DNA
<213> Homo sapiens

<400> 444
gaattcgcgg ccgcgtcgac ccttttcttt ctccttttat gctattattg tgatatatgc 60
ttaatccctt tatattataa agcaggttac acagtgttaa atcactcctt tacacaatct 120
tttttaaaaa taatttaaga gaagaaatga gaaacatact aataggtctt acatatacct 180
acatatttat tgtttctagc actctcctct tcttctatgg attcaggcgt ctcgag 236

<210> 445
<211> 125
<212> DNA
<213> Homo sapiens

<400> 445
gaattcgcgg ccgcgtcgac taatcttgtg aaattagcat tctagcaaga agacaggcaa 60
taaaccataa ccatatctaa gtaagttaat tatactatat gttagaaagt tctgagacgc 120
tcgag 125

<210> 446
<211> 346
<212> DNA
<213> Homo sapiens

<400> 446
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actctttatt tcaactgtag tgagtgttag gtaaggctgt tgattggggt tcaaagctga 120
gaacttcagg cctcagttgg ttctagttcc agcattgctt ttcacttaac ttctctgagt 180
ttcatttcct tccatgataa tgagagaatt gggccctttg acactaaata acactgggtg 240
ggtggatctg aagacatttt atctgcttat tcttttcact cttatgtctc tgtcaaccgg 300
attgacagat tcctcatgtt ttcactctgg tccacaacca ctcgag 346

<210> 447
<211> 119
<212> DNA
<213> Homo sapiens

<400> 447
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gaagtattac ctacacaaag atgagagtca aagctgaaag aagggatacg catctcgag 119

<210> 448
<211> 140
<212> DNA
<213> Homo sapiens

<400> 448
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ttaaaattag attaaatttc cttagatcac ctctaaaaat taaaagaatg gtattagttc 120
caagtagttt gctcctcgag 140

<210> 449
<211> 190
<212> DNA
<213> Homo sapiens

<400> 449
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tcaaacttca ttttgtcgta ttcttttttaa aatgtatttt ttgtttaaaa gcataagtgt 120
tttctactct ttatttgtga tggaaaaata tgagaatcca atagtcaacc aaggtaacgg 180
aacactcgag 190

<210> 450
<211> 260
<212> DNA
<213> Homo sapiens

<400> 450
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aggacacaag ttcacaagtg tggacaggaa cattaaactt tctgccagcc gaaatctgtc 120
aggagcttgg ttcagatttt ttttaactct aaaaagcgct ttggttcaaa gcagattcgt 180
taagagtgtg gggagttttt gttttgtttt attttaagct gcattaaact ccaatgtata 240
tgaaaggggc aatcctcgag 260

<210> 451
<211> 245
<212> DNA
<213> Homo sapiens

<400> 451
gaattcgcgg ccgcgtcgac attctgtttg tgtacatttc tctctagaag ttagtcagaa 60
cagtgtcttt aatttatgag gctttataat ctactttatt gatagactcc agagataggg 120
aaacatttca tactaacaca agagcaaagg tctttatgaa atatagacat acggtctcac 180
aagcatcaat atttttggtg gtgtttttag ttatactgtg tataataaac agagtgaatc 240
tcgag 245

<210> 452
<211> 155
<212> DNA
<213> Homo sapiens

<400> 452
gaattcgcgg cgcgtcgcgt ctctccccag cttccctaca ttcttccatg ctagtccttt 60
tcatcctctg ggtgtctgca tatgtggccc cttctcatgg cagcttttcc tggccagcct 120
atggaagtag gtccatcagg cacccctccc tcgag 155

<210> 453
<211> 217
<212> DNA
<213> Homo sapiens

<400> 453
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ttgggtgttc ctcattctac tgcttatgtt gactatgggc aggaatcttt acctcttaac 120
ttcatttttt acgtttattg aaatggtact ttctatttat ctacttatca gtactaggca 180
gattctgtat aactttcagt ttcaggatac tctcgag 217

<210> 454
<211> 249
<212> DNA
<213> Homo sapiens

<400> 454
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gttggatgtc ttttcccaat ggtgctgagt catcccagtc tctgtctttg gtactgctgg 120
ccctctggtg ccatagcaat ctgtttctgt tctcttttgc ttttgttggc acccagaaat 180
ctaacctgtg ctgtttccat tagtgctcca ggcaagacag aaacccatcc cttgggtggc 240
acgctcgag 249

<210> 455
<211> 226
<212> DNA
<213> Homo sapiens

<400> 455
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ggtgttacga aaggatctat cacaagctcc gttctcctgg ccggcgggcg cactggtagc 120
gcaggcttgt cacgcggcca ccgcggcctt gcacactcac cgcgaccacc cgcacacagc 180
cgcttacctc caagagctgg ggcgcatgcg caaagtggtc ctcgag 226

<210> 456
<211> 428
<212> DNA
<213> Homo sapiens

<400> 456
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ccagatctgt tctgcaacat tcaccgttct ctgcatccag ctctgcttat ctgctgttac 120
cttggacacc agagcagcta taggtatctg ccagagctat gaaatcattc agccggatcc 180
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cttctgaaaa ttccaaacga gatcgcctta acccagaatt tcctgggact ccttaccctg 360
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acctcgag 428

<210> 457
<211> 451
<212> DNA
<213> Homo sapiens

<400> 457
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gcaagccaga aacaccaatg gctgcggaca attattggat taaaaaaaaa aaagagtccc 120
aagtaaaggc tgctctctta ggacagcagg aacagggcag cctagcaaga cagaaaattt 180
ttagacaata accaacctag gccatgagaa aaacgggcct cattcccatc cggtcagcaa 240
atactgagtg gggaacctag actcccacct tcacctggtt ataacgaggc actcttcttg 300
actcctacta caagggcggt atcagagaag gtgagcgggg aatcctgccc tcctcctccc 360
ctccagctgt aatgtcatac agactacaca gggagcctgg actttcactc cacctagcag 420
taacaaggca cctctccccc atacactcga g 451

<210> 458
<211> 394
<212> DNA
<213> Homo sapiens

<400> 458
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caccctttcc agctacctct gctgcccctg agccccaccc ttccacctcc acagcccagc 120
cagtcactcc caagcccaca tctcaggcca ctaggagcag gacaaatagg tcctctgtca 180
agacccctga accagttgtc cccacagccc ctgagctcca gccttccacc tccacagacc 240
agcctgtcac ctctgagccc acatctcagg ttactagggg aagaaaaagt agatcctctg 300
tcaagacccc tgaaacagtt gtgcccacag cccttgagct ccagccttcc acctccaccg 360
accgacctgt cacctctgaa tccaccaact cgag 394

<210> 459
<211> 202
<212> DNA
<213> Homo sapiens

<400> 459
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tgggattatg tgtgtgagcc acagctcctg gcctcttttt ttgtttttcc tatcccaagt 120
tgtattacta gttttgggga gtttgcagac aattgaatat tctataggct gtgttgcagc 180
tttagatgga tcgtccctcg ag 202

<210> 460
<211> 126
<212> DNA
<213> Homo sapiens

<400> 460
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cttctctctt ttttctcatc cccacactca atgcaccctc aggtcctgtg cctccatctc 120
ctcgag 126

<210> 461
<211> 187
<212> DNA
<213> Homo sapiens

<400> 461
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aacatttgct ttgctttctg ctgaatccct aatctcaaca atctatacct ggactgtcca 120
gttctcctcc tgtgctatct tctcttctat ccaagtagaa tgtacgccag gagctccttc 180
cctcgag 187

<210> 462
<211> 193
<212> DNA
<213> Homo sapiens

<400> 462
gaattcgcgg ccgcgtcgac ccttattttc catgacagat cttaacgaca atatatgcaa 60
aagatatata aagatgataa ctaatatagt tatactgagc ctgatcattt gcatttcgtt 120
agctttctgg attatatcaa tgactgcaag cacctattat ggtaacttac gacctatttc 180
tccaaggctc gag 193

<210> 463
<211> 224
<212> DNA
<213> Homo sapiens

<400> 463
gaattcgcgg ccgcgtcgac gatatttaat actttctgat caaacaggtt caaagtaaaa 60
cgttaaattt cacatttctt ttaaagaact cttaaagtgt aacagttacg ccatacttca 120
taagtggtaa agaaaggtat aaaatttgga aacattttgt tgggcatagt agtgattggg 180
tgaaaaggat aaattatatc aaaatgagaa tgtgcttgct cgag 224

<210> 464
<211> 151
<212> DNA
<213> Homo sapiens

<400> 464
gaattcgcgg ccgcgtcgac caaactcctg ttgctttcgt ctatatcagg tctcatttta 60
aaagaatatg aggctcattt tacctcttct tcctccactc ctagttttcc tttttatatt 120
tgacattggc agtagttcca gtacgctcga g 151

<210> 465
<211> 292
<212> DNA
<213> Homo sapiens

<400> 465
gaattcgcgg ccgcgtcgac aaatggtggt aactagaatg aacataaggt aatgctatag 60
agttattcag gaaaatagcc taattacatg actctcttct ttactagtaa ttcacatttg 120
tctggcactt tacaattcat tttgcaataa tgacacaaaa gcacagagag attaaggagc 180
tttcctgaag tcctcaaact tgattatcta tttttttctg ttctgcctac acaacttcta 240
ccccgttgcc accctcagct ccaccatttt gcaccatcaa tcctgcctcg ag 292

<210> 466
<211> 178
<212> DNA
<213> Homo sapiens

<400> 466
gaattcgcgg ccgcgtcgac agaagatttg taaaagaaat aggctttttt ttttttttgg 60
ttaattcaaa cgaggggaaa attagatagc attttcccct aaagaaatgt taatgttcat 120
tttgtggctt tgttttcaag tttcaggagc catgtacatc tcagaagcgt tactcgag 178

<210> 467
<211> 144
<212> DNA
<213> Homo sapiens

<400> 467
gaattcgcgg ccgcgtcgac ttgggttttt gtttcttcat tttttatgct tttctttctt 60
cttctttttc ttgtgtttct ctttaccttc agaggagcag ctccagttcc tctgaaggta 120
aagagaaaca caagaagtct cgag 144

<210> 468
<211> 171
<212> DNA
<213> Homo sapiens

<400> 468
gaattcgcgg ccgcgtcgac cttttttttaa aaaaagtatt tcattgaagc aagcaaaatg 60
aaagcatttt tactgatttt taaaattggt gctttagata tatttgacta cactgtattg 120
aagcaaatag aggaggcaca actccagcac cctaatggaa ccactctcga g 171

<210> 469
<211> 254
<212> DNA
<213> Homo sapiens

<400> 469
gaattcgcgg ccgcgtcgac cagatgatga atttgagaac ccctgtaccc ttcgtcatac 60
catggaaaag gttgttcgct cagcagctac aagtggagct ggtagcacta cctctggtgt 120

tgtgtctggc agcctcggct ctcgggagat caactacatc cttcgtgtcc ttgggccagc 180
cgcatgccgc aatccagaca tattcacaga agtggccaac tgctgtatcc gcatcgccct 240
tcctgcccct cgag 254

<210> 470
<211> 181
<212> DNA
<213> Homo sapiens

<400> 470
gaattcgcgg ccgcgtcgac acatgtacct gtaccagcat gtcctggcca ctctacagtg 60
ccgagaccta ctaagagcca ctgtgtttcc tgagactgta ccatcccttg cactagagac 120
ttcaggaact acttctgagc tagaaggccg tgcccctgag ccattacccc cagtcctcga 180
g 181

<210> 471
<211> 242
<212> DNA
<213> Homo sapiens

<400> 471
gaattcgcgg ccgcgtcgac gaatcccatt caggtaatct tctgttggct ggctgtagaa 60
ctacggagaa catctggaga aacatgtcaa gggtgtgtgt gaaatcgttg agcctactcg 120
attttgtcgt gctgttgcgc ggttttcact tggcactgtc ctttaaactc cttctgtgcc 180
gtgactctgc agtgtctggc agcgtagtag actctactcc ctctatggac gtgatcctcg 240
ag 242

<210> 472
<211> 219
<212> DNA
<213> Homo sapiens

<400> 472
gaattcgcgg ccgcgtcgac gagcatcctg cgctactggg actggctgat cgcatacaac 60
gtttttgtga ttacgatgaa aaatatcctg tcaataggag catgtggata cattggaaca 120
ttggtgcaca atagttgttg gttgatccag gctttcagcc tggcctgcac agtcaaaggc 180
tatcaaatgc ctgctgctaa ttcaccctgt acactcgag 219

<210> 473
<211> 220
<212> DNA
<213> Homo sapiens

<400> 473
gaattcgcgg ccgcgtcgac agaacatcga ccgcttcatc cccatcacca agctcaagta 60
ttactttgct gtggacacca tgtatgtggg cagaaagctg ggcctgctgt tcttccccta 120
cctacaccag gactgggaag tgcagtacca acaggacacc ccggtggccc cccgctttga 180
cgtcaatgcc ccggacctct acattccagc aatactcgag 220

<210> 474
<211> 219
<212> DNA
<213> Homo sapiens

<400> 474
gaattcgcgg ccgcgtcgac cacgaactgc tttctgtaat tgcactgtgg ataaatgttc 60
cgagagtctc cattgttgta caggatcttc agttattcga ggggaatgag gcaggtcaag 120
ccgatgctag ccactagttt gattttttt ctgttttata gtttgcgctg catggtactt 180
gtgaagctta aatattttga gtgttctact ggactcgag 219

<210> 475
<211> 144
<212> DNA
<213> Homo sapiens

<400> 475
gaattcgcgg ccgcgtcgac aaaaaaccct attttcacat acagtcacat tgggatttgg 60
agcttcaaca tatgaatttt cagggttatc attcagtcca aagtacttaa tatgattctt 120
ttccgtttcc acatagtact cgag 144

<210> 476
<211> 176
<212> DNA
<213> Homo sapiens

<400> 476
gaattcgcgg ccgcgtcgac aaaggttagt gcctttaaaa ctaacctgtg ttagagttac 60
atgaatctgg ctctaaagta tctattttgc atccatttat atatagatct taaacagaaa 120
tactctaggt tgccacacca cagttttaag aagttatgct gctgctgtta ctcgag 176

<210> 477
<211> 155
<212> DNA
<213> Homo sapiens

<400> 477
gaattcgcgg ccgcgtcgac agaagctcaa gaagcacact ggaggttacc ttgaggcgtt 60
tgtgtaatct gcatactagt ggagtagcca tggtgaccgt agccacatgg gtgttctgtt 120
gctgttttgc aggttcaaac cttgtactac tcgag 155

<210> 478
<211> 122
<212> DNA
<213> Homo sapiens

<400> 478
gaattcgcgg ccgcgtcgac atggagttgg tcttagccgc tgcaggagcc cttcttttct 60
gtggattcat catctatgac acacactcac tgatgcataa actgtcacct gaagctctcg 120
ag 122

<210> 479
<211> 158
<212> DNA
<213> Homo sapiens

<400> 479
gaattcgcgg ccgcgtcgac ccttgaacgc acctcaggat ggcccgtact ttggaaccac 60
tagcaaagaa gatctttaaa ggagttttgg tagccgaact tgtaggcgtt tttggagcat 120
attttttgtt tagcaagatg cacacaagcc acctcgag 158

<210> 480
<211> 109
<212> DNA
<213> Homo sapiens

<400> 480
gaattcgcgg ccgcgtcgac cggatcaagg tctttcattt cttgttcgct tactttcgtg 60
aaatcctcac atcgttttaa tggtactagt caagacaagt ttactcgag 109

<210> 481

<211> 182
<212> DNA
<213> Homo sapiens

<400> 481
gaattcgcgg ccgcgtcgac ctacatgcta ttatagctgg atttttggca ggtatatcaa 60
tgatgtttta taaaagcaca acaatttcca tgtatttagc gtccaaattg gtagagacaa 120
tgtatttcaa aggcattgaa gcagggaagg ttccctattt tcctcatgca gataacctcg 180
ag 182

<210> 482
<211> 144
<212> DNA
<213> Homo sapiens

<400> 482
gaattcgcgg ccgcgtcgac ataaatcttt ctttttaata taaattggag gaaactaatg 60
aataaatcaa aggttcgagc tgtacatgca gttactgtga ttttagtgtg tgtaataaaa 120
tgctgtgaag cacacactct cgag 144

<210> 483
<211> 194
<212> DNA
<213> Homo sapiens

<400> 483
gaattcgcgg ccgcgtcgac ccaattttaa gtccacactt cggactcatc agaaatttat 60
tttctgaaat gtacagccta atttattcta tgattttaat gtcttttcct ttaatctctt 120
cctctcagta tacttactct ttgacctcaa gaagcctcca attccttaac caacctttt c 180
cccctcccct cgag 194

<210> 484
<211> 194
<212> DNA
<213> Homo sapiens

<400> 484
gaattcgcgg ccgcgtcgac gtgggatata tctttttctgt tctatatttg gtagacaatc 60
ttcttaaccg catgaagtcc cgggcgaagt tgtcctcccc attgtggtca ggactcttca 120
tggcctggac cctctggatg aatttcctca ggatctccac ttgctccatc ctcccgcgtc 180
cccccaaact cgag 194

<210> 485
<211> 228
<212> DNA
<213> Homo sapiens

<400> 485
gaattcgcgg ccgcgtcgac gaggaactat ttaagttttt cagagattga aattatttgt 60
tttaaaaaga tcacattttt gtataaaaaa atcttgagag actaggaagc tatttgcaat 120
agttcatgta tgaaatttga atgccaaaaa ctaatttcct tagcattcac ttttttattt 180
atttttcttt attttttaat tttctgtaag ttactgggtt atctcgag 228

<210> 486
<211> 121
<212> DNA
<213> Homo sapiens

<400> 486
gaattcgcgg ccgcgtcgac tttcttaatt cagttgagtt ttttttttt ccaagtgttc 60

atcttgatcc actaaattta ttgcatgacc tatgaaatgg atcataaccc aaattctcga 120
g 121

<210> 487
<211> 217
<212> DNA
<213> Homo sapiens

<400> 487
gaattcgcgg ccgcgtcgac agacttaaag ttagagctgc gacgactacg agataaacat 60
ctcaaagaga ttcaggacct gcagagtcgc cagaagcatg aaattgaatc tttgtatacc 120
aaactgggca aggtgccccc tgctgttatt attcccccag ctgctcccct ttcagggaga 180
agacgacgac ccactaaaag caaaggcagc actcgag 217

<210> 488
<211> 204
<212> DNA
<213> Homo sapiens

<400> 488
gaattcgcgg ccgcgtcgac ctttgacata tttattactg caagtagaat ctcactaatg 60
acctattcct gtatggcctt atccaaatcg aaatcacaag aacagaagaa taatgaaaaa 120
acagacaaga gttcattaaa tctcccagaa gttgattcag atgttgctaa gcccaaccag 180
gcatgtattt ccatcggact cgag 204

<210> 489
<211> 288
<212> DNA
<213> Homo sapiens

<400> 489
gaattcgcgg ccgcgtcgac aggattaata aatcttttgg catggtcgat ttgtaataaa 60
ttactgaaaa tgtgggatta caatgaaact cttaaagtgt gccacataag tcaaggaagc 120
cacctaagtc atgggatggg catgagtgag acactctgga ataatcttga tgctactctg 180
ggactgccct tgcagggtgg gacatcagct tcactaaggg gctcaccaga gactccttca 240
agggagcatt tcttggtttc catattgtgt ttatgtcatt tactcgag 288

<210> 490
<211> 266
<212> DNA
<213> Homo sapiens

<400> 490
gaattcgcgg ccgcgtcgac ggggagcatc cagtctttaa gagccaagtg ggggcccctt 60
ttccgaagcc acttccaggc caaggcagtc gccagggctt cttgtcccca ccttctgaac 120
cttcttcaaa cagtagtaca agctcccctc agccagcctg cctgcccagc gaggccccca 180
ggttcaaggt gttggcgggg gcggagggca ggggaacggg atccttctcc cgctgcccac 240
caacaccaac actcacacac ctcgag 266

<210> 491
<211> 166
<212> DNA
<213> Homo sapiens

<400> 491
gaattcgcgg ccgcgtcgac atccctcttt ggatctctgt cttccccaca gcatggctca 60
gtcatttatc attaacacat tagctctcag aagtttgctg ctatttgtcc accttttttt 120
ctttgttgtc agtgaggaag gctgttctga attgcatgat ctcgag 166

<210> 492

<211> 246
<212> DNA
<213> Homo sapiens

<400> 492
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tatatttgtg tcatgattat tttttgcttg tgtttgaaaa tatattaaag aaaattatat 120
tttacccccta aattctttag tacagatttc taaaaaataa gaacattttc ctgtatagtt 180
acaaaatcac cttttcaaac aaaataaaaa atgtttttta tatcatttat tacccagtca 240
ctcgag 246

<210> 493
<211> 243
<212> DNA
<213> Homo sapiens

<400> 493
gaattcgcgg ccgcgtcgac acaaataatg ctactaggta gtgactaaat atagcaaaca 60
cttcatcaga tattagaatt aggtcacact attgaggtta taatctgaag gttgtgttac 120
atagaaacca ctttagatta ttatcaactt ggactaggct ttattttata atagcatagt 180
aagtaatatc tattgtgtca tttcttcaac cattttattc taagatccat gaggctactc 240
gag 243

<210> 494
<211> 207
<212> DNA
<213> Homo sapiens

<400> 494
gaattcgcgg ccgcgtcgac tacacattag tgcattgcgt atatcaactg gccctcaatg 60
aagcatttaa gtgcttggaa ttttactaaa ctgacttttt tgcaactttg ggagattttt 120
gaggggagtg ttgaaaattg ccaaacactc acctcttact caaaacttca aataaaatac 180
acattttcaa gagagagcac cctcgag 207

<210> 495
<211> 203
<212> DNA
<213> Homo sapiens

<400> 495
gaattcgcgg ccgcgtcgac agctattata taaatatata ttctggttat agttctaata 60
tggagatgtt gtgtgcaatg ctggcctgtg gtggtctgtg taatgcttta acttgtatgg 120
aggaggccag gctcagagct gagatgtggc ctgaaccttc cctgtatcga tcctttaatt 180
tagaactgtc aagatgtctc gag 203

<210> 496
<211> 172
<212> DNA
<213> Homo sapiens

<400> 496
gaattcgcgg ccgcgtcgac taattttttc taagtaagat acaaaaaatt ttcatctaaa 60
gtaatatttc actttatatt gtaaagaagg taggtatatt ggtggctgag gtctcttgaa 120
attgctaaag ggaaattttt ctatggtaat gctcttacgg ataattctcg ag 172

<210> 497
<211> 180
<212> DNA
<213> Homo sapiens

<400> 497
gaattcgcgg ccgcgtcgac gaggggaggt acagaaagag gagaggagag aaagagagag 60
agagaggaaa aaaagacagg aaagaaaaga aagaaaagga aagaggaaag gaaagggaag 120
ggaaaaggaa aggaagaaag aatgcaaaga ttgagaaaaa tgtgggcact gctgctcgag 180
<210> 498
<211> 182
<212> DNA
<213> Homo sapiens

<400> 498
gaattcgcgg ccgcgtcgac aatccttgag ccagggctgc catataacct gacaggaaca 60
tgctactgaa gtttatttta ccattgactg ctgccctcaa tctagaacgc tacacaagaa 120
atatttgttt tactcagcag gtgtgcctta acctccctat tcagaaagct ccacatctcg 180
ag 182

<210> 499
<211> 174
<212> DNA
<213> Homo sapiens

<400> 499
gaattcgcgg ccgcgtcgac ggagcaataa cttacagttc agatgaagct cctccctctc 60
attcttcttt cctccctccc tttcctggta gcctcctttc ctccccttct gccttcccct 120
tccttctttc cttattcttt tttattttgt ttaaatagta ccacagatct cgag 174

<210> 500
<211> 171
<212> DNA
<213> Homo sapiens

<400> 500
gaattcgcgg ccgcgtcgac attttgaagc gtctttttc tttcttttt cttttttgt 60
tttgttttt gttattgata ttaaacagtg taatctttgc aagcgtatat tgaagattat 120
tctggagcat ttattgcctt accagaaatg ttagtaggaa atgttctcga g 171

<210> 501
<211> 169
<212> DNA
<213> Homo sapiens

<400> 501
gaattcgcgg ccgcgtcgac atccgagaaa gggacgctta taagaatatt tgatacttca 60
tcagggcatt taatccagga actgcgaaga ggatctcaag cagccaatat ttactgcatc 120
aacttcaatc aggatgcggt tgcaattctt gttcccgacc tgcctcgag 169

<210> 502
<211> 332
<212> DNA
<213> Homo sapiens

<400> 502
gaattcgcgg ccgcgtcgac atcagaagag tatccatcac ccgcagcaac cgctcaggga 60
acaccatcaa aaaagaaaaa aagggaatat ctggatttcc tgggcgagga ggagcgagtc 120
tgctcgggag ctgttccagc aggcgatttt taaatactgc tttctacgcc ctatacaact 180
tggcttcaca tacttttaca ctaactttat atgattttta aaaactggtc tgatcggact 240
tctcgtcctg ggacactgtt tactggagtc tggccggctc tccgtgctcc tcttggtacc 300
tcattttggg gagaacctta aacccactcg ag 332

<210> 503
<211> 234

<212> DNA
<213> Homo sapiens

<400> 503
gaattcgcgg ccgcgtcgac attcaatttg cattgtaatt cagccactgc caggatgaga 60
tcctacttct ggttttcagc catctcagct ctgcatctat gggacataag ggcagacata 120
gaaacttttg attcattcat gtggtgcttg agctgggaat ttgaatccct gaattcattc 180
ttctttttc ccccactttg tctagtacaa ttaggagcaa caaccactct cgag 234

<210> 504
<211> 147
<212> DNA
<213> Homo sapiens

<400> 504
gaattcgcgg ccgcgtcgac aggacttatg atccaattca ccaaaagatt aaatgaaacc 60
accctgtgtt ttaaaatata tataatgttc aacctaatgt atatgcaaca tttattctat 120
tctaattatt tgacagggaa actcgag 147

<210> 505
<211> 311
<212> DNA
<213> Homo sapiens

<400> 505
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aaggggagaa atgtacttgg aaattaatgt atgtttacat ctctttgcaa attcctgtac 120
atagagatat attttttaag tgtgaatgta acaacatact gtgaattcca tcttggttac 180
aaatgagact ccttcagtca gttatccaaa taaaagcagt tctgaaacta tccctttctt 240
tgttatgggt ggaaggtggg gctccaggcc ttcgcagtct gtggcttata aaatgtgcag 300
aggccctcga g 311

<210> 506
<211> 207
<212> DNA
<213> Homo sapiens

<400> 506
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ccatctctac ctttaacatc acccagaccc ccgcccctgc ccgtgcccca cgctgctgct 120
aacgacagta tgatgcttac tctgctactc ggaaactatt tttatgtaat taatgtatgc 180
tttcttgttt ataaatgcca cctcgag 207

<210> 507
<211> 374
<212> DNA
<213> Homo sapiens

<400> 507
gaattcgcgg ccgcgtcgac gtactctaaa gttagaatct cctgatcttt cacgagatgc 60
tggactggag attggcaagt gcacatttca tcctggctgt gacactgaca ctgtggagct 120
caggaaaagt cctctcagta gatgtaacaa caacagaggc ctttgattct ggagtcatag 180
atgtgcagtc aacacccaca gtcagggaag agaaatcagc cactgacctg acagcaaaac 240
tcttgcttct tgatgaattg gtgtccctag aaaatgatgt gattgagaca aagaagaaaa 300
ggagtttctc tggttttggg tctccccttg acagactctc agctggctct gtagatcaca 360
aaggtccgct cgag 374

<210> 508
<211> 195
<212> DNA

<213> Homo sapiens

<400> 508
gaattcgcgg ccgcgtcgac cttggatatc caactttcca tctaaaacct actgtctttt 60
ctgctctttc attgcattac cacttccacc cctgcaaact gattcatcat gatctccagt 120
cccttgatca ctactttctc tctagttttg ggctccctca acctcacttc ctacctgatg 180
gggcctaaac tcgag 195

<210> 509
<211> 181
<212> DNA
<213> Homo sapiens

<400> 509
gaattcgcgg ccgcgtcgac caaagtcaag cctccgaagt acctgttgga tagctgtgcc 60
cctctgctcc gatacctgtc ccactcagaa tttaaggatc tgatactgcc caccatacag 120
aagtccttac tgaggagtcc agagaatgtt attgaaacta tttctagtct gcgggctcga 180
g 181

<210> 510
<211> 160
<212> DNA
<213> Homo sapiens

<400> 510
gaattcgcgg ccgcgtcgac taagattaaa gattcttagt gagatcatct tgccaatttg 60
ttgtacatct ctcattcatt gttgggggaa aaaaaagcac aactatacct ctttaatgtt 120
atttcttcc attatccctc tgactcgggt tctccctata 160

<210> 511
<211> 214
<212> DNA
<213> Homo sapiens

<400> 511
gaattcgcgg ccgcgtcgac cgagttattt ttattagcct tttttgaatt gaatatctct 60
ggtattttct aaactagaat tgcacttaat tctaatatat aaatttattt attgaattgg 120
taaaaagaga ttggcccctg ttctagcttt gtgactgttg tgctctcata aaaagtctac 180
tatatttatg attgttaggc gctatctgct cgag 214

<210> 512
<211> 209
<212> DNA
<213> Homo sapiens

<400> 512
gaattcgcgg ccgcgtcgac gggggttcta gaacatgtgt gaataagtcc ttgttttatt 60
ctcagcctct atgagggaaa tgaatgccca gagaccagag ccccattctg cagctcctcc 120
ctgtttaggc tgtggaaaac tggcctccaa actctgcagt gacaacacaa gatggccgtg 180
aagcaagcct ggcaccagag ggtctcgag 209

<210> 513
<211> 143
<212> DNA
<213> Homo sapiens

<400> 513
gaattcgcgg ccgcgtcgac ctcgagtttc aaaacataat agtatacaaa atataaaata 60
tcttaaatat ttataaaaat cacaagaaaa aaatagaacg tatgaaaata tttttatctg 120
agttctcccc cattattctc gag 143

<210> 514
<211> 130
<212> DNA
<213> Homo sapiens

<400> 514
gaattcgcgg ccgcgtcgac gtcatctttt gtcagtaaag ttttgtaact tcctcacaaa 60
gttctcgtgc ttcttataaa taatgtattt tacatcttac acttctattg ctattataca 120
ttgcctcgag 130

<210> 515
<211> 223
<212> DNA
<213> Homo sapiens

<400> 515
gaattcgcgg ccgcgtcgac gctctgaata gttaaaaatt aaatatttat tttcttcccc 60
aagctttagg taaggagaag aggggtcaag agttaaactt agagaccctt tgtctctgag 120
aagcatcctt ctaagacatt ctgttggagt tccctcagta ctattcctta caactggagt 180
gggtagaagc cttatgaaaa ttatactgag aacctgcctc gag 223

<210> 516
<211> 185
<212> DNA
<213> Homo sapiens

<400> 516
gaattcgcgg ccgcgtcgac tttaaaagag tgtaatggaa gatgagaggg attctatttt 60
ggaccacatg ttggtgtgga ggagtgtcat tgacagtaag caccccaggc gtgtgtctgg 120
gagagcattg ggtatcgctc acttctgcag gtacttgttt ttttttctca tggccgaaac 180
tcgag 185

<210> 517
<211> 156
<212> DNA
<213> Homo sapiens

<400> 517
gaattcgcgg ccgcgtcgac gcccccagtg tcctttctgc tgcaggtgcg tttttgctgt 60
tcacaaatgc ttctgctgtg ccttctttgg tgtgttctgc ctcttctcct gagactgctg 120
ttccttcaag ttcagggtga gtctgatctc ctcgag 156

<210> 518
<211> 213
<212> DNA
<213> Homo sapiens

<400> 518
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cgccttcgga tgaactcagc tgctcttcca ttgtcaatag caatgcttgc ttttatcact 120
ctaccaaata actgtttgtt gtttattgcc ctggtacagt tttgtgcaga gtctttatcc 180
aaaaataaaa taaatgcaac ccctttactc gag 213

<210> 519
<211> 196
<212> DNA
<213> Homo sapiens

<400> 519
gaattcgcgg ccgcgtcgac tcgggaagct ataaaaattg taaaaggtct attagtaata 60

ttacacagga tactttaagg cagccctgca gagtagcatg catctagctc ccagagtttc 120
tttatgcatt aatattgcac atgttctcct tacccatgtg ggcaaggcag cccaccagcc 180
cctcataacc ctcgag 196

<210> 520
<211> 238
<212> DNA
<213> Homo sapiens

<400> 520
gaattcgcgg ccgcgtcgac agatgttccg gccaccccga acctcacact gcagtgtctg 60
cgacaactgt gtggaacgat ttgaccatca ctgcccctgg gtgggcaact gtgtggggag 120
acggaactat cgcttcttct acgcgtttat tctctccctc tcattcctga cggccttcat 180
cttcgcctgt gtggtcaccc acctgacgtt gcgcgctcag ggaagcaact tcctcgag 238

<210> 521
<211> 197
<212> DNA
<213> Homo sapiens

<400> 521
gaattcgcgg ccgcgtcgac gtgagagctc agagctacag agcctttcag atgaatttga 60
aaacagactc tgtgtgtgtg tgcatgtgtg catgtgtggc atatgtgccg tatgtcagta 120
gcttgacagt tttcaaatcg tgcctatatt tttttgcata cacaaatttt tgtgtttgca 180
aactcagaat cctcgag 197

<210> 522
<211> 270
<212> DNA
<213> Homo sapiens

<400> 522
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cctgggagag taatggggat tcgagtgctt cgattatctt tggtggtcat cctcgtatta 120
ttactggtag ctggtgcttt gactgcctta cttcccagtg ttaaagaaga caagatgctc 180
atgttgcgta gggaaataaa atcccagggc aagtccacca tggactcctt tactctcata 240
atgcagacgt acaacagaac agatctcgag 270

<210> 523
<211> 208
<212> DNA
<213> Homo sapiens

<400> 523
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tgtgcatcct tactcactga tgatgccgct gaacttctgc ctcttttatg ctgttacctc 120
ctccttccct ctccttcacc ttagccctcc tagacctgac atcacttaca gcgggactaa 180
ggtgcaggga acacggccca tgctcgag 208

<210> 524
<211> 230
<212> DNA
<213> Homo sapiens

<400> 524
gaattcgcgg ccgcgtcgac attttaagga agctacttga attgctcatt ctgtgacttt 60
atttgtgtcc taaacattct tcagtgaaaa taattttatt tcagtcaaac atttatgagg 120
aaatgagatc acatctttgt cactggatgc tacttgaaga gggagtactt tgtaaccact 180
ttgatatgct gttatcacca ccccctgccc tccgcaaggt tctccctata 230

<210> 525
<211> 641
<212> DNA
<213> Homo sapiens

<400> 525
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aagtttcggg atgagcccag gccccgcttt ggtcttctcc gtggccgaga gttttacatg 120
aaggatatgt acacctttga ctcctcccca gaggctgccc agcagaccta cagcctggtg 180
tgtgatgcct actgcagcct gttcaacaag ctagggctgc catttgtcaa ggtccaggcc 240
gatgtgggca ccatcggggg cacagtgtct catgagttcc agctcccagt ggatattgga 300
gaggaccggc ttgccatctg tccccgctgc agcttctcag ccaacatgga gacactagac 360
ttgtcacaaa tgaactgccc tgcttgccag ggcccattga ctaaaaccaa aggcattgag 420
gtggggcaca cattttacct gggtaccaag tactcatcca ttttcaatgc ccagtttacc 480
aatgtctgtg gcaaaccaac cctggctgaa atggggtgct atggcttggg tgtgacacgg 540
atcttggctg ctgccattga agtcctctct acagaagact gtgtccgctg gcccagccta 600
ctggcccctt accaagcctg cctcatcccc cctaactcga g 641

<210> 526
<211> 264
<212> DNA
<213> Homo sapiens

<400> 526
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acaatggaat ctacgttgac tttagcaacg gaacaacctg ttaagaagaa cactcttaag 120
aaatataaaa tagcttgcat tgttcttctt gctttgctgg tgatcatgtc acttggatta 180
ggcctggggc ttggactcag gaaactggaa aagcaaggca gctgcaggaa gaagtgcttt 240
gatgcatcat ttagagaact cgag 264

<210> 527
<211> 244
<212> DNA
<213> Homo sapiens

<400> 527
gaattcgcgg ccgcgtcgac ggcatttgtg tcgaacacga gtagcagtgg tggaaagtgt 60
aattggagga agattaagac tagtgtatga agaaagcgaa gatagaacag atgacttctg 120
gtgccatatg cacagcccat taatacatca tattggttgg tctcgaagca taggtcatcg 180
attcaaaaga tctgatatta caaagaaaca ggatggacat tttgatacac caccaacgct 240
cgag 244

<210> 528
<211> 273
<212> DNA
<213> Homo sapiens

<400> 528
gaattcgcgg ccgcgtcgac ccttttttggt gaattgagtg ctgtttttgc ttttctcaga 60
ttccaaatga gagtatacat ttttctttgt ttgatgtgct gggtgagatc tggtcttgac 120
cctgctgggc caaggttctc cagaaaacca ccatatagca gattagatta cacggatgca 180
aagtttgtgg atgtcatcca ttctgactcc aatgcctatt attttgttct cagtataatt 240
gttccagata aaactatgat gggtgaactc gag 273

<210> 529
<211> 412
<212> DNA
<213> Homo sapiens

<400> 529

gaattcgcgg ccgcgtcgac ctttcattta tcatatgact tggtagaaac cgtttttctt 60
accgtataaa acctgagctc tttagttatt ttggaaaatg aaagcacgtt cattgtcgtt 120
ctgttgggtt tccaacagaa cttggttctt gtggttactc aatatttcat tgtgtttagg 180
ccctgtggat ggagagttac caccaagagc tagaaatcag gccaataacc caccagccaa 240
tgctctccga ggaggagcca gccaccctgg aaggcatcct agggccaaca accatcctgc 300
tgcttactgg cagagggaag agagatttag ggccatgggc aggaacccac atcaaggaag 360
gaggaaccag gaggggcatg ccagcgacga agctagagac caagaactcg ag 412

<210> 530
<211> 110
<212> DNA
<213> Homo sapiens

<400> 530
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ttttagtctt gtttactttc tcttcattgt taagagtatg caaactcgag 110

<210> 531
<211> 257
<212> DNA
<213> Homo sapiens

<400> 531
gaattcgcgg ccgcgtcgac agacaacatc accctagccc aagacatcgc tattagagat 60
acatcacctg gacactaaag cctccacccc agtgacactc tcaaggtgct gacaaaatgg 120
acatggacat ttgttgcttt tcttcttttg aattaggaac tctattgtgt ttcctgaatt 180
tactgtctgc ttggcccatg atcctggtat gttccttgct ctctgccaaa acatgcaccg 240
tcccccccac actcgag 257

<210> 532
<211> 195
<212> DNA
<213> Homo sapiens

<400> 532
gaattcgcgg ccgcgtcgac tgtattctgg gtcactttct cttgcatagc tatcctcatt 60
ccagtagttt tcatgggctg cctaagaata ctgaacatac tgacttgtgg agtcattggc 120
tcctattcgg tggttttagc cattgacagt tactggtcca caagcctttc ctacatcact 180
tcgaacgtac tcgag 195

<210> 533
<211> 197
<212> DNA
<213> Homo sapiens

<400> 533
gaattcgcgg ccgcgtcgac gttttattta tttgcttttt ttctggctcc tgagtggcaa 60
acaaaggaat tttttatgct ggagatactt tgtattattg atctaagttt aatatcttga 120
cctgtttgat ctgagagtct gttatagata tgtatctatt ttccttcctt ccttccttcc 180
cctccttctt tctcgag 197

<210> 534
<211> 225
<212> DNA
<213> Homo sapiens

<400> 534
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ctcaatctcc aagtacagtc tcattctgag gttccagggg tttctcaacg taagaattta 120
gggggacaga attcagcccg tagcagctgg gcagcaggac tcatgggtcc cagttctcag 180

gccccaagga ctcagagcag caaaggatac gtgacagatc tcgag 225

<210> 535
<211> 177
<212> DNA
<213> Homo sapiens

<400> 535
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ttcttatttc acttggctgt catggatctc atttcttctt tctgtctcat cctctactat 120
tcacccctct ccatagaccc atccctccct tggctattgg aacaactcaa gctcgag 177

<210> 536
<211> 403
<212> DNA
<213> Homo sapiens

<400> 536
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acaatggcca agaacaaatt aagagggccg aagtccagga atgtatttca catagccagc 120
caaaaaaact ttaaggctaa aaacaaagca aaaccagtta ccactaatct taagaagata 180
aacattatga atgaggaaaa agttaacaga gtaaataaag cttttgtaaa tgtacaaaag 240
gaacttgcac atttcgcaaa aagcatttca cttgaacctc tgcagaaaga actgattcct 300
cagcagcgtc atgaaagcaa accagttaat gttgatgaag ctacaagatt aatggctctg 360
ttgtaatata ctggtgatgc atctaattct ccacacactc gag 403

<210> 537
<211> 247
<212> DNA
<213> Homo sapiens

<400> 537
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gtctgatctt gaactttcta aggaaattca agacagtcta tcagaagtaa agtggaatat 120
gtttggcctt gaatttttc tagtgttaga agccctttttg ttcctttca catgttatca 180
agtggttaag gcagggcgga ttctagatga aattcaggac aatctatcag aagtaaaggc 240
actcgag 247

<210> 538
<211> 396
<212> DNA
<213> Homo sapiens

<400> 538
gaattcagcc aaagaggcct aaaaaaggag aagaaagaaa agaaacctgc tgttggcgta 60
tttgggatgt ttcgctatgc agattggctg gacaagctgt gcatgattct gggaactctc 120
gctgctatta tccatggaac attacttccc ctcttgatgc tggtgtttgg aaacatgaca 180
gatagtttta caaaagcaga agccagtatt ctgccaagca ttactaatca aagtggaccc 240
aacagtactc tgatcatcag caacagcagt ctggaggaag agatggccat atacgcctac 300
tattacaccg ggattggtgc tggtgtgctc atagttgcct acatccaggt ttcactttgg 360
tgcctggcag ctggaagaca gatacacagg ctcgag 396

<210> 539
<211> 342
<212> DNA
<213> Homo sapiens

<400> 539
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tcagcgttaa tcagcccctc aaagggagag aaaagctggg cttttccctt gctgtacctc 120

attcagcttt tgatttccat ggccccacca tttatgtgca agatttgcaa tggttgtcag 180
cttcctctga agaccgagct tgacgcctcc atgccagctg ccgttggaac gcaaagccaa 240
gcaagggtca ggagggaagc tggcccggct gactggagaa tgggaacccc aggactctcc 300
actcatctcg aagggttgtg gtccccccag gaaagtctcg ag 342

<210> 540
<211> 249
<212> DNA
<213> Homo sapiens

<400> 540
gaattcggcc aaagaggcct atggtagctg ttcggtagat gctctttgct atttataagt 60
gactttaaac cttctcttgg ctgttaagaa atgtgttcta gatttagcta tttattgttt 120
gcggcctgca tgctgaaaca gtgcttacgt tgtctccatg tgtacggggc ctgtgtggat 180
ggtcgtatgt tttgcacatt ttgtagttgt tggtgtgctt cgccgcacac aaaaaaagag 240
tacctcgag 249

<210> 541
<211> 230
<212> DNA
<213> Homo sapiens

<400> 541
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aacagaagct gcagcacttc agtgctgtct tcctgctcat cctctgcttg ggaatgatgt 120
cagctgctcc accccctgat ccaagtttgg ataatgagtg gaaagaatgg aagacgaaat 180
ttgcaaaagc ctacaatctg aatgaagaaa gacacaggag acatctcgag 230

<210> 542
<211> 365
<212> DNA
<213> Homo sapiens

<400> 542
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acttcaaaga ggagattggc attgctaagc tcatcccgct cgtgaccacc tacatcatcc 120
tgtttgccta catctacttc tccacacgca agatcgacat ggtcaagtcc aagtggggcc 180
tcgccctggc agccgtggtc acagtactta gctcactgct catgtctgtg gggctctgca 240
ccctcttcgg cctgacgccc acactcaatg gcggtgagat cttcccatac ctggtggtcg 300
ttattgggct agagaacgtg ttggtgctca ccaagtcagt ggtatcaact ccagtggacc 360
tcgag 365

<210> 543
<211> 366
<212> DNA
<213> Homo sapiens

<400> 543
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cgaggactgt tcctgatcct gacaatgctg aacttgtctc aggttcctag tataatgggt 120
gagcagagat gggctattct ctcaactttc cctaaaccaa tgccagttcg ccatgatgct 180
atagtttttc caaaattcgt tactactgat aaaacagtgg atttgccata tttaccctat 240
gatcccaccc gagcaccatt aggagaaaat cgctctttac tagaacaggg ttctttatgt 300
tttcaaatta atggaccagg aaattgtatc aacctcacag cccgagcttt gggggtgagt 360
ctcgag 366

<210> 544
<211> 365
<212> DNA
<213> Homo sapiens

<400> 544
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ttttttttctt tcttgtagca tctgcatctc taatggatac tgaggggttt ggtgagctcc 120
ttcagcaagc tgaacagctt gctgctgaga ctgaaggcat ctctgagctt ccacatgtag 180
aacgaaattt acaggagatc cagcaagctg gtgagcgcct gcgttcccgt accctcacac 240
gcacatccca ggagacagca gatgtcaagg catcagttct tctcgggtca aggggacttg 300
acatatccca tatctcccag agactggaga gtctgagcgc agccaccact tttgaacctc 360
tcgag 365

<210> 545
<211> 475
<212> DNA
<213> Homo sapiens

<400> 545
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gctgtgtaca ctgctggcgg cggcggtccc cactgctcct gctccttccc cgacggtcac 120
ttggactccg gcggagccgg gcccagctct caactacccct caggaggaag ctacgctcaa 180
tgagatgttt cgagaggtgg aggagctgat ggaagacact cagcacaaac tgcgcagtgc 240
cgtggaggag atggaggcgg aagaagcagc tgctaaaacg tcctctgagg tgaacctggc 300
aagcttacct cccaactatc acaatgagac cagcacggag accagggtgg gaaataacac 360
agtccatgtg caccaggaag ttcacaagat aaccaacaac cagagtggac aggtggtctt 420
ttctgagaca gtcattacat ctgtagggga tgaagaaggc aagaggaacc tcgag 475

<210> 546
<211> 436
<212> DNA
<213> Homo sapiens

<400> 546
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caccatgact ggcctgaggg ccccttctcc agctccctcc accggcccgg aactccggcg 120
gggctctggt cccgaaattt tcaccttcga ccctctcccg gagcgggccg tggtgtccac 180
cgcgcgtttg aacacttctc gcgggcaccg aaaacgcagc cgaagggtgc tctacccccg 240
agtggtccgg cgccagctac caaccgagga acccaacatt gccaagaggg tcctctttct 300
cctgttcgcc atcatcttct gccagatttt gatggctgaa gagggtgtgt cgcagcccct 360
ggctccggag gatgctacca gcgccgtgac acctgagccc atttctgcgc ccattactgc 420
gcccccggtc ctcgag 436

<210> 547
<211> 393
<212> DNA
<213> Homo sapiens

<400> 547
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gctctgtcga agactttgga tgtgtcgtgc attctcttgc actttctcca gcagctggcg 120
cacctgccgg cagtagttag ccactttgca ctcccggaga aaagatttca gctgtagaac 180
agtaggcaac accaactctg ggaaagcgat ggtgtgggcc tggctgcgca ggtattccag 240
agtaaggtca cacagctgtt ccagcagccc gtcccggtac gccttctcct gcaggttggt 300
gctggacagc ttcaagatca cagagaagtt gatgggcttg gagctcatgc gacctggccg 360
cctattgaag tccacctgct ggaaaatctc gag 393

<210> 548
<211> 447
<212> DNA
<213> Homo sapiens

<400> 548
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agatgtatta tgacaaataa ctcagcaggg atgtgaacaa aagtttccgg gattgtgtgt 120
tatttccatt cagtatgtta aatttactag ggcagctaat ctgtcaaaaa gtctttttca 180
gtatatgtta cagaattgga tgactgaatt tgaacagacc cttcgaggct tgccatcatt 240
caggtcaact ccacgcgctt ggacctgtcc ctgaccaaag gattacccaa ttggatctcc 300
tcagcatttt ctttctttaa aaaatgggtg ggattaatat tatttggaga tacactttgc 360
tgtggattag tgttgcttct ttgattggtc tgtaagctta aggcctaaac taggagagac 420
aaggtggtta ttgcacaggc actcgag 447

<210> 549
<211> 313
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (220)

<400> 549
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tgcctttctg gtgggaggct tgatcgctcc agcacccaca acagcagtac cctacacggc 180
aataaaatgt gtggatgtcc gtaagaacca ccataaaacn agatggctgg cgccttgggg 240
acctaacaag tgtgacaaga tccgtgacat cgaggaagca attccaaggg aaattgaagc 300
aaatgagctc gag 313

<210> 550
<211> 392
<212> DNA
<213> Homo sapiens

<400> 550
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gacttggagc agttctgctt cttatccact taattttcct catctctgga gccgaagcag 120
cttccttcca gcgaaaccag ctgcttcaga aagaaccaga cctcagattg gagaatgtcc 180
aaaagtttcc tagtccagaa atgatcaggg ctttggagta catagaaaag ctcaggcagc 240
aagctcacag agaagaaagc agcccagact acaatcccta ccaaggcgtc tctgttcctc 300
ttcaactcaa agaaaacgga gaagaaagcc acttggcagg gagctcaagg gatgcactga 360
gtgaagacga gtggatgcgg ataatactcg ag 392

<210> 551
<211> 419
<212> DNA
<213> Homo sapiens

<400> 551
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tctagcatac gtggaggttc tttttcactt tcttgaccct catgtctgct tctcttgagt 180
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accattgcag gactgaaatc cccagactac cgataccttg gtggtcggtt ctcagcttca 300
ctaagaaagc agaacggctg cttatgctga agcctctgtg acagtcaagg gggtcatcac 360
ctacattatt gctgccaggg gtcacagccc tgacctttgc cttccagact tttctcgag 419

<210> 552
<211> 223
<212> DNA
<213> Homo sapiens

<400> 552
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aatgttaggg aaattgagag tgaaggacgg ttcctggcag gtcagggggt ttatttttat 120
ttttatctat tttttttat tgtttctcct tagctgctgt ctgttcagtt ttgagactct 180
tcagtttcta gctttatatt catacaaagg cgttgcgctc gag 223

<210> 553
<211> 289
<212> DNA
<213> Homo sapiens

<400> 553
gaattcggcc aacatgacga agttaacaca gtggctttgg ggactggctc tcctgggctc 60
tgcctgggct gccctgacca tgggagcact gggcttggag ttgcctttcc cctgccgaga 120
ggtcctgtgg ccactgcctg cctacctgtt ggtctccgct ggctgctatg ccctgggcac 180
ggtgggctat cgcgtagcta cattccacga ctgcgaggac gctgcccgag agctgcagag 240
ccagatcgtg gaggcccgag ctgatttagc acgcaggggc attctcgag 289

<210> 554
<211> 331
<212> DNA
<213> Homo sapiens

<400> 554
gaattcggcc aaagaggcct agttttctcg ctatattcca ggtcctacag tgtgtttttc 60
tcagtttgga agtttttcag tgtttctcat catattccag gacatacatt tttcaagtca 120
atttttccac gttattcagt tttctccaca cattccaggt catagagtgt ttgtgtctct 180
tttccatgtt tttcagtttc ctcccataat ccaggtacta cagtgtgttt tttttcattt 240
atctcgttat ataccatttt ttaccatatt ccaggtccta ctcttgtgtt tctcattttc 300
catgatttta cattttcatg ccttactcga g 331

<210> 555
<211> 391
<212> DNA
<213> Homo sapiens

<400> 555
gaattctgcc aaagaggcct accagcaccc ggtgccaggg gccatggagc cccgggcagt 60
tgcggatgcc ttggagaccg gagaggaaga tgcggtgaca gaagctctgc ggtcgttcaa 120
ccgggagcat tctcagagct tcaccttcga tgatgcccag caggaggaca ggaagagact 180
cgcaaagcta ctggtctccg tcctggagca gggcttgtca ccaaagcacc gtgtcacctg 240
gctgcagact atccgaatcc tatcccgaga ccgcagctgc ctggactcat ttgccagccg 300
ccagagctta catgcactag cctgctatgc tgacattacc gtctcagagg aacccatccc 360
acagtcccca gacatggatg tcctcctcga g 391

<210> 556
<211> 480
<212> DNA
<213> Homo sapiens

<400> 556
gaattcggcc aaagaggcct aagacgatca gataccgtcg tagttccgac cataaacgat 60
gccgactggc gatggtggca aaggcaattg aggaggattc tgaatgatgc ggcccatttc 120
tacacctcca aaaatcacct gtccaggatt ggagtaccga ctggagactg ggtactgggt 180
agcagcatca cctgcatgct ctgctgaccc tacagctgtt gtctgattgg ttaagacatc 240
caactgcaca ttttgattgg ccagcaggga ctgcaccagc cctatgctct gggtgggaga 300
cagagcttga gcagagctgt ggattggtgc aatagggatg ttcactgtac agggcgggtt 360
gttttcaggg acacctgatg ctcctgtaac tggtaagtca tcctcatctt cactgaaaac 420
gtttgggttg aagacaggca ggttaatata gtccatggaa atcttcctaa cttcctcgag 480

<210> 557
<211> 406

<212> DNA
<213> Homo sapiens

<400> 557
gaattcggcc aaagaggcct agatgaagaa agcacacgtg tttgggatca cgttctcctt 60
cacccaggcc atgatgtatt tttcttatgc tgcttgtttc cggttcggtg cctacttggt 120
ggcacaacaa ctcatgactt ttgaaaatgt tatgttggta ttttctgctg ttgtctttgg 180
tgccatggca gctgggaata ctagttcatt tgctcctgac tatgcgaaag ccaaagtatc 240
agcatctcat atcatcagga tcattgagaa aacccctgag attgacagct acagcacaga 300
gggcttgaag cctactctgt tagaaggaaa tgtaaaattt aatgaagtcc agtttaacta 360
tcccacccga cccaacatcc cagtgcttca ggggctgagc ctcgag 406

<210> 558
<211> 337
<212> DNA
<213> Homo sapiens

<400> 558
gaattcggcc aaagaggcct atctgaatat gcgttgtttg gcagctcggg tcaactataa 60
gactttgatt atcatctgtg cgctattcac tttggtcaca gtacttttgt ggaataagtg 120
ttccagcgac aaagcaatcc agtttcctcg gcacttgagt agtggattca gagtggatgg 180
attagaaaaa agatcagcag catctgaaag taaccactat gccaaccaca tagccaaaca 240
gcagtcagaa gaggcatttc ctcaggaaca acagaaggca ccccctgttg ttgggggctt 300
caatagcaac gggggaagca aggtgtttgg gctcgag 337

<210> 559
<211> 374
<212> DNA
<213> Homo sapiens

<400> 559
gaattcggcc aaagaggcct acctcaacgc caccaccgcc tcctcactcc atggccatga 60
gagccgcctg cctcttcctg ctgttcatgc ctggcctgct ggctcagggc caatatgacc 120
tggatcctct ccccccattc ccggaccatg tccagtacaa ccactatggc gaccagattg 180
acaacgcaga ctactatgac taccaagaag tgagtcctcg gacccctgaa gagcagttcc 240
agtcccagca gcaagttcaa caggaagtca tcccagcccc taccccagag ccagcagctg 300
caggggacct ggagactgag cctaccgagc ctggccctct tgactgccgc gaagaacagt 360
acccattact cgag 374

<210> 560
<211> 285
<212> DNA
<213> Homo sapiens

<400> 560
gaattcggcc aaagaggcct agccgctgcc gtcgccatga cccgcggtaa ccagcgagag 60
ctcgcccgcc agaagaacat gaagaggcag agcgactcgg ttaaggaaag cgccgagatg 120
atgggctttc tgctgccgcc cgcaagcaga gggactcgga gatcatgcag cagaagcaga 180
aaaaggcaaa cgagaagaag gaggaaccca agtagccttg tggcttcgtg tccaacccctc 240
ttgccctccg cctgtgtgcc tggagccagt cccaccatgc tcgag 285

<210> 561
<211> 425
<212> DNA
<213> Homo sapiens

<400> 561
gaattcggtc aaagaggcct acgaggagaa tggagaccaa acctgtgata acctgtctca 60
aaaccctcct catcatctac tccttcgtct tctggatcac tggggtgatc ctgttggccg 120
ttggagtctg ggaaaagctg actttgggaa cctatatctc cctgattgct gagaactcca 180

caaatgctcc ctatgtgctc attggaaccg gcaccaccat cgtggttttt ggcctctttg 240
gatgctttgc tacatgccgt ggtagtccat ggatgctgaa actgtatgcc atgttcctgt 300
ccctggtgtt cctggctgag cttgttgctg gcatttctgg atttgtgttt cgtcatgaga 360
tcaaggacac cttcctgagg acttacacgg atgccatgca ggactacaat ggcaacgaac 420
tcgag 425

<210> 562
<211> 238
<212> DNA
<213> Homo sapiens

<400> 562
gaattcttca gctgaggaac ggtggtacca ggtgaagaaa atccactttg ggtcccgacg 60
cgactgacaa ggaccgtgaa agagcaagat gaaccccaag atgattctcc tgctcctgat 120
gattgagaca gggataagta tacctttgtg ggccatagta agatcatggc cagtaccttt 180
accggtacat tccaattctt ctaccttgcc tttatttttt gcaacagaaa ctctcgag 238

<210> 563
<211> 359
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (203)

<400> 563
gaattcggcc aaagaggcct agtttgagca cttcagcctc ttttttgtct gcgtgtttca 60
gatcaacgtc ttcttctaca cagttccatt agccatcaaa ttaaaggagc atcccatctt 120
cttcatgttc attcagattg ccatcatctc tatcttcaag tcctatccaa ctgtggggga 180
tgtggccctc tacatggctt tcnttccctg tgtggaacca tctctacaga ttcctgcgga 240
acatcttcgt cctcacctgc atcatcatcg tctgctctct ttcttccctg tgtggaacca 300
tctctacaga ttcctgcgga acatcttcgt cctcaccggc atcatcatcg tccctcgag 359

<210> 564
<211> 399
<212> DNA
<213> Homo sapiens

<400> 564
gaattcggcc aaagaggcct agctttggtc tggaccgagc ggggcagcgt cccgggctcc 60
cgagtgtctc ccatggcgga tacgaccccg aacggccccc aaggggcggg cgctgtgcaa 120
ttcatgatga ccaataaatt ggacacagca atgtggcttt ctcgcctgtt cacagtttat 180
tgctccgctc tgttcgttct gcctcttctt gggttgcatg aagcagcgag cttttaccag 240
cgtgctttgc tggccaatgc tctgaccagc gctctgaggc tgcatcagag attacctcac 300
ttccagttga gcagagtgtt cctggctcag gccttgttag aggacagctg ccactacctg 360
ctgtattcac tcatcttcgt caactcctac cccctcgag 399

<210> 565
<211> 373
<212> DNA
<213> Homo sapiens

<400> 565
gaattcggcc aaagaggcct aggcgacaag agtctggagg tggcggtatg gaatcccatt 60
aaggtgcgat tgggagtgag ccgagtctct ttgaccaggc tagagcgcca gcgctcctct 120
gaaccggcac actttggcaa agttgcaatg gcctgtttgc ttaggcactg aagtggatga 180
tggttaggat gacaacttgc agagaacgcg gatgagacct tcagtttgtg cccacactca 240
tttgcagcaa ccctaacaga gattgtgaag attttcaaag tggggcacct cgatttctcg 300
aatctgtggt gtggcgaata tccgtgttcc tcctgcttaa ctagcctgtt tgaaggcaca 360

gttcattctc gag 373

<210> 566
<211> 133
<212> DNA
<213> Homo sapiens

<400> 566
gaattcgcgg ccgcgtcgac gcctcactca attcatgctt ttctctccag cagtgatgaa 60
ctgctgggct ctgactaaac acttgatgtt atttcaagct gttgaccttt gctcatttct 120
caaccctctc gag 133

<210> 567
<211> 281
<212> DNA
<213> Homo sapiens

<400> 567
gaattcggcc aaagaggcct acttttcccc actgcaaaac caggctcggc ttccctcgtg 60
ctcatctacc tatagtgtat ctgaggtata ttttgcacgt gttttcttac atggtcaata 120
acatgctcgc cctcaccatt tttctcattt tattttcctt tcgccttaat ttattttgcc 180
ttgcactttg cacttgcctg aaagggatga ggataccaaa gggggaaaat tcacctgttt 240
tagggggaaa tttctctatt tttatgaatg gtgcactcga g 281

<210> 568
<211> 624
<212> DNA
<213> Homo sapiens

<400> 568
gaattcggcc aaagaggcct acctcccggc tgctgcgggt gccctggatc cagtcggctg 60
caccaggcga gcgagaccct tccctggtgg aggctcagag ttccggcagg gtgcatccgg 120
cctgtgtgtg gcgcgaggca gggaagccgg tacccgggtc ctggccccag cgctgacgtt 180
ttctctcccc tttcttctct cttcgcggtt gcggcgtcgc agacgctagt gtgagccccc 240
atggcagata cgaccccgaa cggcccccaa ggggcgggcg ctgtgcaatt catgatgacc 300
aataaactgg acacggcaat gtggcttttct cgcttgttca cagtttactg ctctgctctg 360
tttgttctgc ctcttcttgg gttgcatgaa gcagcaagct tttaccaacg tgctttgctg 420
gcaaatgctc ttaccagtgc tctgaggctg catcaaagat taccacactt ccagttaagc 480
agagcattcc tggcccaggc tttgttagag gacagctgcc actacctgtt gtattcactc 540
atctttgtaa attcctatcc agttacaatg agtatcttcc cagtcttgtt attctctttg 600
cttcatgctg ccacagcact cgag 624

<210> 569
<211> 467
<212> DNA
<213> Homo sapiens

<400> 569
gaattcgcgg ccgcgtcgac gtgctgggac atgagatgta ttctcttctt tgttcctcac 60
tctatctctg tgggtggaaa aaattactcc cattctatag aagagagacc agaacctccg 120
agaggacaag caactttctt agggggcaca gctaggaggg taggctgaat aatgatcccc 180
ctaaaatgtc cacattctaa tcccaaaaac ttatttaaaa agggactttg caggggtgac 240
tgagttaagg atcctcagat gaggaggttt tcatggattg tttgggtggg cccaatgtaa 300
tccaaggatc ctttcaagag caaggcagga gggccagagt cagagaaaca gacacgacaa 360
tggaagcaga ggttggggtg atactggagt gggaggggcc accagccaag gaatgcaggc 420
agcctctagg agctggaaaa ggcaagaaag catgtttcct cctcgag 467

<210> 570
<211> 269
<212> DNA

<213> Homo sapiens

<400> 570
gaattcgcgg ccgcgtcgac gctgggggaa aaaagaaact aaatcaaata aaaataaatt 60
ttcaaatttc atcaacaagt ggtacattca gtataaaact acaaatgccc atatagatta 120
ttacaaaggt acataccaat caagaactag gcatcacatc caggaactgt gcatacatac 180
taaatcattc attacagatt tttactttat tgtgaagtat attcaataaa atataagtga 240
cagaaatgag aaaatccaca gtcctcgag 269

<210> 571
<211> 208
<212> DNA
<213> Homo sapiens

<400> 571
gaattcgcgg ccgcgtcgac ataaaaagta tagtaaatac ataaaccaat aacatagtca 60
cttattatca ttatcacata ttatgtactg tgcactgttg tacgtgctgt acttttatac 120
agctggcagc acgggtttgt ttgcaccagc atccccacaa acatatgagg aacatgtaca 180
tcttaccacg gttgcaactt cactcgag 208

<210> 572
<211> 178
<212> DNA
<213> Homo sapiens

<400> 572
gaattcgcgg ccgcgtcgac tccctactga agatagcttt gcttgaatga gcttgcctgc 60
agtgcgaatg ctggggctta ttgtgttgac ggcgcagtcg ccatggttgc tgcgtcctga 120
ggacatggtt acttccctga ctatctgtca tgcctcactg gtaccccgta gcctcgag 178

<210> 573
<211> 172
<212> DNA
<213> Homo sapiens

<400> 573
gaattcgcgg ccgcgtcgac tgccagagag tttatagtag ttgaatatgg attatgaaca 60
gttactttta tttttaattt tttgggggac ggaatcttgc tctgtcaccc aggctggagt 120
gcagtggtgc gatctcagct cactgcagcc tctgcctcct gggttcctcg ag 172

<210> 574
<211> 183
<212> DNA
<213> Homo sapiens

<400> 574
gaattcgcgg ccgcgtcgac tgcttttgga ggacagagtg aatttctccc aaattactgt 60
cttctgcctc ctaaatcagg accacatttt tcaggtgtgc ttatttgggg aacgaggcct 120
ggtctgtgtt ccgctgtatt gctgatgaag ctaaaaatta agggattaat ggcatccctc 180
gag 183

<210> 575
<211> 224
<212> DNA
<213> Homo sapiens

<400> 575
gaattcgcgg ccgcgtcgac ccttttttcag tattgtttca ggaaatggta ttgtttgttt 60
ttattttact ttttactgtt tcctgggtac atgaccaatg tcatttgact ggtgagtaca 120
ttgagctagc agctttagag aaatttcatg gtgatctaga gatgcatgac agctccctgc 180

actggcagcc tactttacaa ctaccatctg agaagggact cgag 224

<210> 576
<211> 249
<212> DNA
<213> Homo sapiens

<400> 576
gaattcgcgg ccgcgtcgac cagaaaacca atgtttaaca ttcacagagg atttactgc 60
ttaacagcca tcttgcccca aatatgcatt tgttctcagt tctcagtgcc atctagttat 120
cacttcactg aggatcctgg ggctttccca gtagccacta atggggaacg atttccttgg 180
caggagctaa ggctccccag tgtggtcatt cctctccatt atgacctctt tgtccacccc 240
aatctcgag 249
<210> 577
<211> 251
<212> DNA
<213> Homo sapiens

<400> 577
gaattcgcgg ccgcgtcgac catcctttgg gacttcagtt cctgcttttc tttgtgaatt 60
tttccctatt cgtatcctgt ccatattcct aagcaataca taccgtaggt ttgcctgtat 120
ttaaaagtgg catcatgtcc tttacgttat tccagtttgc ttttttgtta ctcagcatta 180
tatcttggga tacatccatg ttgatgcagg cagctgaggc tcatttactt tttccccact 240
gcaaactcga g 251

<210> 578
<211> 161
<212> DNA
<213> Homo sapiens

<400> 578
gaattcgcgg ccgcgtcgac agaggttgtt cgcgccttga gagttaagcg aagtgtggtg 60
gcttccaagg aatacaaaca taaaggcctt cgaccgttgc aaatagacta aagtgaaaac 120
aaatctgaat gaagatgaag ttatttcaga cggttctcga g 161

<210> 579
<211> 173
<212> DNA
<213> Homo sapiens

<400> 579
gaattcgcgg ccgcgtcgac gcacgcactt catctgggcc tgcagtgaaa aagtattcta 60
gttggagtgc tgcaaaccca gccttaatga tctttggcaa agcactttgt gtcatgttcg 120
cttccagata cttctgtctc tcctcagcac tcaattcttg caactgcctc gag 173

<210> 580
<211> 160
<212> DNA
<213> Homo sapiens

<400> 580
gaattcgcgg ccgcgtcgac agatgcccat gaattcttaa attacctact aaatacaatt 60
gctgatattt tacaagaaga gagaaagcag gaaaaacaaa atggtcgttt acctaatggt 120
aatattgata atgaaaataa taacagcaca cccactcgag 160

<210> 581
<211> 262
<212> DNA
<213> Homo sapiens

<400> 581
gaattcgcgg ccgcgtcgac tgaattctag acctgcctcg agccgtgcta ttactttcac 60
ctctttcatt gcttgtggaa aaacccttat ccagggaaga attaataact tcaacaatac 120
tatcaaagga gggcctaaaa ttaaaaaaaa aaaagaaaca aaaaagttgt gaaacaacaa 180
caacaacaat acttggcaaa ctcctgacag acttagggag aatattatga tattgaggct 240
gctgttgact aaggcactcg ag 262

<210> 582
<211> 175
<212> DNA
<213> Homo sapiens

<400> 582
gaattcgcgg ccgcgtcgac ggattcttca ttactacatc tgaaaagctt ctcatctaga 60
aggtatttat ctcaaaattc atttgtgtgt ttcaaacaga atttcacaaa attctggtct 120
ttaacaataa ataatgttga ttctaaacat cagaattgta acaggaatac tcgag 175

<210> 583
<211> 179
<212> DNA
<213> Homo sapiens

<400> 583
gaattcgcgg ccgcgtcgac gagatatctg tatttaaaaa aaaggttttt tttccttaaa 60
tgtgcaaaac agcacagggc agtttagggc tcttcatagc tatcttcatg tacacattta 120
tttggcttac gagcactctt cttcctcagc ttttcccatc ccctatcgcc accctcgag 179

<210> 584
<211> 242
<212> DNA
<213> Homo sapiens

<400> 584
gaattcgcgg ccgcgtcgac aggagctgct gtggagaaag gtatactatg aagttatcca 60
gcttatcaag actaacaaaa agcacatcca cagccggagc actttggaat gtgcctacag 120
gacgcacctg gttgctggta ttggcttcta ccagcatctc cttctctata tccagtccca 180
ctaccagctg gaactgcagt gctgcatcga ctggacccat gtcactgacc cccatgctcg 240
ag 242

<210> 585
<211> 240
<212> DNA
<213> Homo sapiens

<400> 585
gaattcgcgg ccgcgtcgac ccagaaaaga aaagatagtg atttaacaaa cttttcctgc 60
tcacctacat tgtcttcatt catatttatt agaatgacca acatacttta ccattccttc 120
aatcacttta atttcattat gtttggttaa tttttcttct tgataaacca gttgtccctc 180
agtatactcc agggattcat tccaggagca cctgtgtata ccataattca cacactcgag 240

<210> 586
<211> 177
<212> DNA
<213> Homo sapiens

<400> 586
gaattcgcgg ccgcgtcgac cactttcact gggccagaca gaaaacaaga aatctttttt 60
gtgttggcaa atcaaagagg catgctttta cagaaacttg ctttgcagat tcttcaccct 120
gtgctggtca tgatactttc agctccatac caaggagggg taaaatacac tctcgag 177

<210> 587
<211> 147
<212> DNA
<213> Homo sapiens

<400> 587
gaattcgcgg ccgcgtcgac gatttttctg gggggaggat tggtttatgg aacgaattat 60
ttcttatttt tcatggcaac ctacaaattg acttcctttg ttctcatcac cgtctttgtt 120
gttagaatat gttcagagag tctcgag 147

<210> 588
<211> 288
<212> DNA
<213> Homo sapiens

<400> 588
gaattcgcgg ccgcgtcgac accaaataga actgtaaaca gtttgtcaac taataagctg 60
aatttctggt tgaagtacag ttggaacagg ttatctccac atttgggtct tttacctctt 120
agcatagtgt gatttctttc ctctttttta aaaatccacc tccttcctct ctagcatagt 180
gtgatttctt taaatctttt ttatcctatg ctaaatgtat gggttttttg tttgtttgtt 240
tggtctcact ctgtcaccca ggctgaagtg ttcagtggcc gtctcgag 288

<210> 589
<211> 210
<212> DNA
<213> Homo sapiens

<400> 589
gaattcgcgg ccgcgtcgac cttcatgatc tggtcttacc tctcaggact ccccccatcc 60
ttaccattgt ttgttgatct ctggtgcagc caaatgaagc ccatcatgct tgtcctctgc 120
ctggaagctc ttccttccct cttcctggcc aatggctact gtcccttcag agcacctgtt 180
cagatgaaac ctccaccaag caccctcgag 210

<210> 590
<211> 229
<212> DNA
<213> Homo sapiens

<400> 590
gaattcgcgg ccgcgtcgac ccgggtagta ttccatcata tatatataat cagatatata 60
tacataatca gatatatata tatataatca gatatatata tatcagtttc tttatccact 120
catttgcaat tatttaattt ttaaataaaa cactttataa acacataaaa ttatgagatc 180
tctagttata tttctcatgc taagccactg tgcttacccc tgcctcgag 229

<210> 591
<211> 152
<212> DNA
<213> Homo sapiens

<400> 591
gaattcgcgg ccgcgtcgac ctccattctt tcatgtgtag gtttaatatt gtggacccaa 60
tctgtgttct ggtaatggaa ttaatttgga taacatcatt agggctgggc acagttgctc 120
atgcctataa tcccagcact gaaaagctcg ag 152

<210> 592
<211> 175
<212> DNA
<213> Homo sapiens

<400> 592

gaattcgcgg ccgcgtcgac caaagattcc tacccaatcg tgtacacact gtctctaatc 60
tcctctcttt gcttggcctg gacctgtgaa tatgataatc acgcccttga ctgctttact 120
tagtatagga ctccatttta gcagaatgaa gagtgtttcc cctactgatc tcgag 175

<210> 593
<211> 235
<212> DNA
<213> Homo sapiens

<400> 593
gaattcgcgg ccgcgtcgac tctgtattct aatgaatagt aatagctgac attaatgaga 60
actgtatttc agacaccgtg ctaagttctt ttcatgtatt atctcattta atctttgtaa 120
caaattgatg aggtgggtca tatttttatt tatttattta tgtttgagac agggtcttgc 180
tctgtctgct aggctggagt gcaatggagc tatcactcct cactgcagcc tcgag 235
<210> 594
<211> 244
<212> DNA
<213> Homo sapiens

<400> 594
gaattcgcgg ccgcgtcgac aaatctatca gtgcagtata tatacaacct tgtcagacga 60
gtagctgaca aaggaatctc cctagtacaa cttgtagcag tactattata aagaattcct 120
gacttgacac atttgatgta agttggttga aataatttgt tgggtttgtt caatttttgg 180
tgtcatttat ataaaaagaa taaagaagaa tgtgaatggt aggaagtcag gcgagatgct 240
cgag 244

<210> 595
<211> 229
<212> DNA
<213> Homo sapiens

<400> 595
gaattcgcgg ccgcgtcgac tgatggttct cctgtacccc agggcatggc cctgtatgca 60
ccacctcctc ccttgccaaa caatagccga cctctcaccc ctggcactgt tgtttatggc 120
ccacctcctg ctggggcccc catggtgtat gggcctccac cccccaactt ctccatcccc 180
ttcatcccta tgggtgtgct gcattgcaac gtcccagaac accctcgag 229

<210> 596
<211> 218
<212> DNA
<213> Homo sapiens

<400> 596
gaattcgcgg ccgcgtcgac gagaattgtt tttagcagag tttgtgacca aagtcagagt 60
ggatcatggt ggtttggcag cagggaattt gtcttgttgg agcctgctct gtgctcccca 120
ctccatttct ctgtccctct gcctgggcta tgggaagtgg ggatgcagat ggccaagctc 180
ccaccctggg tattcaaaaa cggcacacac aactcgag 218

<210> 597
<211> 153
<212> DNA
<213> Homo sapiens

<400> 597
gaattcgcgg ccgcgtcgac ttctagacct gcctcgagca aataaaaaac ccagttctaa 60
atcataaaaa tagaagaccc agttctagtc atgtggcatt catttatctt ttggggaatg 120
tccctcctat gcctttgtag aacacaactc gag 153

<210> 598
<211> 194

<212> DNA
<213> Homo sapiens

<400> 598
gaattcgcgg ccgcgtcgac atttttccct gtttttggta aggtaatgaa gaaggaaaaa 60
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ctttttgttt ctcctttctt tgttttgtaa gtacatgcat tttggctgaa aaagatacag 180
gcaccattct cgag 194

<210> 599
<211> 232
<212> DNA
<213> Homo sapiens

<400> 599
gaattcgcgg ccgcgtcgac cagaaaccca taaagatttc tttaaggatt tggatccgat 60
atctttctga attaggccct aaattattat gaatgtgaac ctaggttata tgtcttgcct 120
gtggtatgtg tgctgcgata ctttgaagca gaatgatttg tggatcattt taccagtcct 180
ttctcttttt tggtcaaatg cagatggcat ggaggaaatg gaaagactcg ag 232

<210> 600
<211> 227
<212> DNA
<213> Homo sapiens

<400> 600
gaattcgcgg ccgcgtcgac cacaggtttt gaggaaacag agagctaaaa gttggagtgt 60
ttattctatc cactttttag actttgcaag agtgtgcatc cacaatcaca tatatatgga 120
tggaatcact gaatcttttt catctcctat tcagaataca tctgcttcct gctttcacaa 180
tgtgcaattt tgctcttttc tgttgtgcag ctatgggaga actcgag 227

<210> 601
<211> 198
<212> DNA
<213> Homo sapiens

<400> 601
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taaatcttgt ttcaacttgt tgctagttat ctagatttgt tgcccaaagt gtatcagcaa 120
atgttcaagg tttttatact tgtcaaggct gttttcatta ttcacgtgtt aaaagtgaca 180
tcatcttccc aactcgag 198

<210> 602
<211> 233
<212> DNA
<213> Homo sapiens

<400> 602
gaattcgcgg ccgcgtcgac cagaatcaaa tataaggcta aaattattag tgcatacagt 60
gaaattgagc aacccgctgt gttagaaatt aaaaggtgag ttctgttatt caccaactgt 120
taatttagcc caaaaagtgc cgagaaggag ttgggagtgg actccaatct gttatgaaag 180
tgagacaaac attcttgttc cttctgatcc ctttcagtag cagttctctc gag 233

<210> 603
<211> 119
<212> DNA
<213> Homo sapiens

<400> 603
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tggggcacag ttttacacgt gataacaata gtatgctgat ttccaaggtt ctccctata 119

<210> 604
<211> 188
<212> DNA
<213> Homo sapiens

<400> 604
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taattttaat ttttattttc tttccagctt tattgaagta taattgacaa ctgaaagact 120
agttggtaat tgaaattagg actcattttt atagtcagac aatgttaata tttaggagga 180
gtctcgag 188

<210> 605
<211> 193
<212> DNA
<213> Homo sapiens

<400> 605
gaattcgcgg ccgcgtcgac ccagtatgtc tcttctattg tattcactat gtctactttc 60
gttccagatt acagagttag actattccct cttttcttca tgctgtttgc agattaccaa 120
agttccagag aacctgctac cctttgcagt gcagtgcaga aacctcactg tgtccaatac 180
ccgaacactc gag 193

<210> 606
<211> 173
<212> DNA
<213> Homo sapiens

<400> 606
gaattcgcgg ccgcgtcgac ctggagtgcc tggtgttgtc ctccggaatg ctggtgccgg 60
aactcgctat ccctgttgtc tacctgctgg gggcactgac catgctgagt gaaacgcagc 120
acaagctgct ggcggaggcg ctggagtcgc agaccctgtt ggggccgctc gag 173

<210> 607
<211> 310
<212> DNA
<213> Homo sapiens

<400> 607
gaattcgcgg ccgcgtcgac cttttcacct tctaggagat cgactcacct tctttttcct 60
acctttctat tgcattttaa ttttgttgac taaaatttta ctttctaaga gctcatcttg 120
ttttctgatg gtttttcttc ctcctcctca atccaaccca tcccctctcc ttccctggca 180
tcactgcctt tccccctttc ccttttctc ctctctccct ctccttcatc ccctcttctt 240
ctcctctctc cttcctgtgc tcctcctctt ccctctttct ccacctgcat cctgttcccc 300
agccctcgag 310

<210> 608
<211> 189
<212> DNA
<213> Homo sapiens

<400> 608
gaattcgcgg ccgcgtcgac agaggcaata cagtaaaaat tacacggtag aaactgagtt 60
accagtgcac accaaaactt gggtagggag aatataccta aagttgtcct tagaaggaaa 120
attgtagttc tgtatatcaa catattaaag atgaaaataa aatttaaaac aatagcacaa 180
agcctcgag 189

<210> 609
<211> 188

<212> DNA
<213> Homo sapiens

<400> 609
gaattcgcgg ccgcgtcgac gagttaagtg gcagaaccgg gattcaaact caagttctcc 60
ctaacatcct ggaagccaag ggaaaggagt aatgaaatat gaaagtgaga aacactgttg 120
gctgggcatg gtggctcctg cctataatct cagaactttg ggaggctgag gcaggcagat 180
cactcgag 188

<210> 610
<211> 202
<212> DNA
<213> Homo sapiens

<400> 610
gaattcgcgg ccgcgtcgac ctttcttgta ttctctttat cttcctcagc tattttctgt 60
ataatatcct cagatctatc ttctagttta taaattttct tcaaccatga ctaattttat 120
gttatacttg tccaagatgt ttttaatttc agtgacaata tttttcattt tgaaagttct 180
gtttttggc cagactctcg ag 202

<210> 611
<211> 166
<212> DNA
<213> Homo sapiens

<400> 611
gaattcgcgg ccgcgtcgac gattgatttt tcatatgttg aatcatcctt tcgttttgga 60
tttattctgt taggtcatgt tgtgtaattc ctttttatat gttactggat ttagtttctt 120
agcgtttttt gaggattttt gcatctttaa ttgtaaggga ctcgag 166

<210> 612
<211> 152
<212> DNA
<213> Homo sapiens

<400> 612
gaattcgcgg ccgcgtcgac gaagatacta aaactacttt ttctcccaca ggataattgt 60
agacgtacat tcaaaataga agtaaattaa tggtaatatt agttcttcta tttttaatta 120
atagattaaa cctttggacc acggcactcg ag 152

<210> 613
<211> 194
<212> DNA
<213> Homo sapiens

<400> 613
gaattcgcgg ccgcgtcgac tagtagtgtt gcattgtggt tttaatttgc atttccttga 60
tgaccattga agttgagcac attttcatat ttatagatca cttcagtatc ctgttttgtt 120
tagtgtctgc taaaatcttt tctccatttc tctattgggt tgtctttttt tctgttttaa 180
gcaacacact cgag 194

<210> 614
<211> 258
<212> DNA
<213> Homo sapiens

<400> 614
gaattcgcgg ccgcgtcgac cttttagtaa aagtaaatat ttcctgctct ttttctgctt 60
tttattttcc tgctccagtc tgtgttattt attttctatt ttcttttaac ttgctttgga 120
tttaatttgc tgttttctaa tttctcaagg tagaagccca gatttttgat ttgagacctt 180

tcttttcctt ttttgaatat aagcatttga taatctgtgt tttcctttat gtactgcttt 240
tgctgtgtcc tgctcgag 258

<210> 615
<211> 188
<212> DNA
<213> Homo sapiens

<400> 615
gaattcgcgg ccgcgtcgac ccttcctgca acaagatgat cgtgagtcag ctgtcctata 60
acgccggtgc tctgacctgg ctgtcctgcg ggagcctgtg cctgctgggg tgcatagcgg 120
gctgctgctt catccccttc tgcgtggatg ccctgcagga cgtggaccat tactgtccca 180
tactcgag 188

<210> 616
<211> 149
<212> DNA
<213> Homo sapiens

<400> 616
gaattcgcgg ccgcgtcgac gtccattcat tgattcattg aatgattcat ttactcaata 60
agcatatatt tggtgccatc ttggcccagg cactatgctg ggcattagag aaatttgaca 120
gtgggttagg gcaaggccct gccctcgag 149

<210> 617
<211> 193
<212> DNA
<213> Homo sapiens

<400> 617
gaattcgcgg ccgcgtcgac aggatttaac ctatagagtt ctgattcttt cttcccttca 60
atttttatca agtatttaat tgcccactgg atgatttatt ttagaattgg cctacttttt 120
tttttttttg gcttcagtgc ctgtgggcaa atgtaaattt gcagctgaat tagcaaacca 180
gggacgactc gag 193

<210> 618
<211> 233
<212> DNA
<213> Homo sapiens

<400> 618
gaattcgcgg ccgcgtcgac atctgtaagt ctctctttac ctcttcctct ctctctttct 60
gcctccctcc ttttctcttt agtttcccca gagtgttgcc gagctaaggt tcaatcagag 120
gactcttaga taccttaatt ttttttggct ttatttttga agaaagggat catcgttccc 180
attaggacat gtatttacaa tgtgttttct tttgcttgtc caccacactc gag 233

<210> 619
<211> 211
<212> DNA
<213> Homo sapiens

<400> 619
gaattcgcgg ccgcgtcgac caaagttgtg tttcaaacat catataatgc tctgcctgga 60
aggagttcta ataaatactt tcctccctca ctttacatca ccagtgatgt ttttaaagtc 120
ctttatagat tggtgtcctg ggtattgcct agctgaccct tccctaatct tccccgcggc 180
gcccccaccg ccacccaaca caacactcga g 211

<210> 620
<211> 187
<212> DNA

<213> Homo sapiens

<400> 620
gaattcgcgg ccgcgtcgac ttttgttgct gttagtatcg tcgcaacagc aaagagttta 60
ataacattta ttttctagtg tattgcagta atcattcttc tttttttaa atttctaagc 120
tgttttatta aatgaaaaga gaacaatgct aagcagcttg tatggtgtgt gtgttgtgtg 180
gctcgag 187

<210> 621
<211> 170
<212> DNA
<213> Homo sapiens

<400> 621
gaattcgcgg ccgcgtcgac gttgattatc aaattgtttt tgagtgagtt ttggtagttt 60
gtgtctttta aggaattggt ccattttttt ttttaattgt caaatttggg ggcataaagt 120
tatttatgct gttaccttac tatcttttta atatccgtta tggtctcgag 170

<210> 622
<211> 247
<212> DNA
<213> Homo sapiens

<400> 622
gaattcgcgg ccgcgtcgac gttttaaaaa attctgttta atatctgctt agttggctgg 60
ctgcctttgt gttttcccta ctagattgta agctcctaga ggacaaatta cagagcttat 120
ttattggtgg tttaatttaa atacattttt ttctctacag attagtgcaa accagtctgc 180
acagatgcga gttatatctg taaacttgct tggtattttg gtttacatac actatcatac 240
tctcgag 247

<210> 623
<211> 244
<212> DNA
<213> Homo sapiens

<400> 623
gaattcgcgg ccgcgtcgac gattagcaga ataacatcgg atcaaaactg tctagcctgc 60
agttcccctt aattttgtat tataaaaaga aaactaaaca gagaaaactt taaaagacaa 120
tataatgata ccacgtagat tccagtactt gttaacagtt tgccatattt gcttcgtctg 180
tgtgtctttt cggaaccatt tgaaaattgt agatatgaca tttcacccca acacccagct 240
cgag 244

<210> 624
<211> 135
<212> DNA
<213> Homo sapiens

<400> 624
gaattcgcgg ccgcgtcgac cgcattttac caaccatatt cctttttaac tctacaaatg 60
gtgcagataa tccgaacact tatagttcat ttattgtttc caccctccca ctctgcacat 120
gactgttatc tcgag 135

<210> 625
<211> 140
<212> DNA
<213> Homo sapiens

<400> 625
gaattcgcgg ccgcgtcgac ataaaaacag cattgtagta cattactaca gctttgtggt 60
atattttgaa gtctggtagt gtgatgcctc cagctttgtt ctttttgctt aggatcgctt 120

gtctcttcag ggtcctcgag 140

<210> 626
<211> 249
<212> DNA
<213> Homo sapiens

<400> 626
gaattcgcgg ccgcgtcgac cctttattca gaccctcact gctttgtacc tggactactg 60
taacacctcc ctgtctgatt gaatctagtt catctgttac actgaggtga gattaaattt 120
gctaaacaca gtaatttgt accactcttt agccccaaat tacgtagttc tcatagctgc 180
taaaataaga acaaactctt tagcttttcc aggtcttcca taataatgcc caaacatacc 240
catctcgag 249

<210> 627
<211> 197
<212> DNA
<213> Homo sapiens

<400> 627
gaattcgcgg ccgcgtcgac ttctaaacat ttgctgttga agtgttttaa tatttgtagt 60
tcacaacatt gatcaagttg gaatctttta ttatcttgaa cagtttattc aaaagtatat 120
ttttcgtatt ttcatttgct agcttttctt tgttattttt tgtgagactg aatactctta 180
aaaaggccga gctcgag 197

<210> 628
<211> 178
<212> DNA
<213> Homo sapiens

<400> 628
gaattcgcgg ccgcgtcgac gaagaatact gtgtattatc aaaatggtaa cattgtgttt 60
ccttctgaaa cttgtttctt ttcattcagc attactgttg acatctatcc ttactgatac 120
tttcaagttt gtttcttttg cttatggtat tctactaatt aatccaccac atctcgag 178

<210> 629
<211> 273
<212> DNA
<213> Homo sapiens

<400> 629
gaattcgcgg ccgcgtcgac aacactcctt atgacaagct gccacaaggc aagggcatca 60
gatctcttta gtcaaggcaa gtttctcagc ctgtatactg attatgtttt gggctggata 120
attatttgtt gttggggctg tcctgtgtat tgcagcgtcc tgggcctttg cccactagat 180
gccaatagca tccctttccc caatgtggca accagaaatt accaaatgtt acctgagagc 240
aaatcctctt ttacttctcc catccctctc gag 273

<210> 630
<211> 216
<212> DNA
<213> Homo sapiens

<400> 630
gaattcgcgg ccgcgtcgac gtattatcaa atcattttgt gaaatcacct cattttaaga 60
tttttaaatc taatgagtgt gagtaaaata catactaatg ttgctgtgaa tttagtatgt 120
cttttctttt tctttaagtt tgtgccattg gattattctg ttcctataga aatccccact 180
ataaaatgta aaccagacaa acttccattt ctcgag 216

<210> 631
<211> 168

<212> DNA
<213> Homo sapiens

<400> 631
gaattcgcgg ccgcgtcgac gttctataaa gataaatccc ttctcctgcc attttatttt 60
attatatttg catagggttt ttttaattca atgttttata atccattgca gttctttttg 120
atgctcccat tgtcacagat ttggctggta gtagtctccc cactcgag 168

<210> 632
<211> 193
<212> DNA
<213> Homo sapiens

<400> 632
gaattcgcgg ccgcgtcgac cagtttgatt tttagctcaa attgttgttt aaaataaatt 60
atgaatttga acgtattcag ctatggtttt cctttttatc tgctctaaaa gtgccttagc 120
tacaatagtt ttttctctgt tactcttcac tgtaattttt ttttatgaag gaaaatcgct 180
ggagggactc gag 193

<210> 633
<211> 211
<212> DNA
<213> Homo sapiens

<400> 633
gaattcgcgg ccgcgtcgac gaaatataaa aactatgatg ctgcttcttt cttttttttt 60
cttgagacac agtctcactc ttttgcgcag gctgtactgc agtggtggga tctgcactca 120
ctgcaacctc tgcctcccga gttcaagtga ttctcctccc tcagcctccc tagtagctgg 180
aattacaggc atgtgccacc acgacctcga g 211

<210> 634
<211> 253
<212> DNA
<213> Homo sapiens

<400> 634
gaattcgcgg ccgcgtcgac atcatttctt cttcatgctt agtactgcta ccttagtttt 60
gttcctcatg atttcttgcc tgtgttatta taatagatcc ctaagtggtc tctttgtcta 120
cattctcacc ccctccattt tatcccattg tgctttccag aaggaacttt ctaattgtag 180
atctgattgt gcctctcttg gggcacacat cgtatcactg ccaggacagg accaagtacc 240
aagcaacctc gag 253

<210> 635
<211> 312
<212> DNA
<213> Homo sapiens

<400> 635
gaattcgcgg ccgcgtcgac cctggtctgt cccaacatga aggcaataat ttgttacctc 60
attaatagat ctgtcctttt tcttttcaaa cagttcctta tgttacccat gaaatctagc 120
tggggctgtg tggtttctga ttccccctgg cttattcttt acttttccta cttttccagg 180
ctcagcaggg agctgctgga tgagaaagag cctgaagtct tgcaggactc actggataga 240
ttttattcaa ctccttttga gtacctggaa ctgcctgact tatgccagcc ctacagaagt 300
gacgaactcg ag 312

<210> 636
<211> 168
<212> DNA
<213> Homo sapiens

<400> 636
gaattcgcgg ccgcgtcgac agccagagca atagtaatgt ttatagacca tctttctcat 60
aaatgccact gctcactatt gtacatatgt ctttttcaag tatttttgga agacctccct 120
cctctgctac catatttccc taatgtctgt gaaactaagt acctcgag 168

<210> 637
<211> 262
<212> DNA
<213> Homo sapiens

<400> 637
gaattcgcgg ccgcgtcgac gcattgaatc caggtttttt gtttcacttt gtttttcaa 60
agaatacttc ttaagtggtg gtattttttt gttgtattac atcatgtggc aaatgatctc 120
tgtctgtgat gttatgattg atcaggtttc aggtgttatc agtttgatta ttccccttgta 180
ccttgtcagc ttttacccag tgatttcagt ggccgttaat ggtcatggcc tagattcact 240
atttcaggaa ggcacgctcg ag 262

<210> 638
<211> 254
<212> DNA
<213> Homo sapiens

<400> 638
gaattcgcgg ccgcgtcgac cttttcacga ttcattgctg aaggctttat tctatgaaga 60
cctttgttgc tgaaggtatg aaggatgtgg tagtaatgga aagtatttta ctgatctttt 120
atttcctttt aaatttttg agacagagtc tcgctctgtc atccacgttg gagtgtggta 180
gcgtgatctc agctcactgc aacccctgcc tcctgggttt aagcacttct cctgcctcag 240
cctcccaact cgag 254

<210> 639
<211> 169
<212> DNA
<213> Homo sapiens

<400> 639
gaattcgcgg ccgcgtcgac tattttacaa attactcata accagaagag ttctgttgga 60
ttttaccata tggccagatt catcttgcct ttcaaactta tgtaagtaat ttttccaaat 120
ctcttttttt cccataacat acatgctgct gagtccactc ctcctcgag 169

<210> 640
<211> 159
<212> DNA
<213> Homo sapiens

<400> 640
gaattcgcgg ccgcgtcgac cctaaaccgt caattgaatt ctagcaagga atttgtgggc 60
aaacctacta ttttagacac tattaataag actgaattgg cctgtaataa cacagttatt 120
ggttcccaaa tgcagttaca gctgggaaga gtcctcgag 159

<210> 641
<211> 230
<212> DNA
<213> Homo sapiens

<400> 641
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ccagcctgct atagcttttt ctttgctgag atttgttttt ccatttgctt tactagatta 120
cttgaagcgc ttttataatg actgctgtag cttccttgtt gaagaattcc agcgtctgtg 180
tcatcttggt gttggcatct acctattatc ttttctcctt caaactcgag 230

<210> 642
<211> 253
<212> DNA
<213> Homo sapiens

<400> 642
gaattcgcgg ccgcgtcgac gcttttaaga actttcaaat attttctcca gctgtatatt 60
ggttgtcttc agggaagagt ttgttctgaa tttgcctcgt ctgttttcca gaagtgaaaa 120
tttgaaccga ctgacctttt agttttagtt actgtatttt taaatatttt atttgcttcc 180
ttttagaagc tacatgctca atttttgtag tttcctatac ctcataaata tttttgagct 240
cagccagctc gag 253

<210> 643
<211> 245
<212> DNA
<213> Homo sapiens

<400> 643
gaattcgcgg ccgcgtcgac ccccgcacac ctccaagtca cccaggtcca cctgcattgc 60
agcagactgc cccagccaca cccacgctct ctccctcttc tgtacgcatg acgctccttt 120
ctgcctctga gcatttgcat gtgctgttcc ctctacttgg aatactcttc cctctttttt 180
tttttatttt tgagacagag tctcactctg ttgcccaggc gattctcctc tctcagcctc 240
tcgag 245

<210> 644
<211> 197
<212> DNA
<213> Homo sapiens

<400> 644
gaattcgcgg ccgcgtcgac cggatttcaa ggaattttta gactttgtgg atttttttctt 60
cactataatt gtatgtttgg ctcctaattt atttaaatta catacataga tatttttgtt 120
actttgagaa tagtctatct gaaatttgaa gttctttaga gcttaatata ttaaatatgc 180
taacactcat cctcgag 197

<210> 645
<211> 258
<212> DNA
<213> Homo sapiens

<400> 645
gaattcgcgg ccgcgtcgac gggaattact atctacctct tagtgttata tttggaatga 60
atgaaataac acatggagag aatttagtac aatacctggc acatcatata catgtttaaa 120
gtagttctta tgcttgtatt gaagttatta atgatgaact tggagattgg cacgggaata 180
agaaagaggg ttggcagaga tgttgagaag gttgaattga caggcagtgg ctgtctggat 240
gttagggcaa ggctcgag 258

<210> 646
<211> 174
<212> DNA
<213> Homo sapiens

<400> 646
gaattcgcgg ccgcgtcgac gcaattcttc gctgaagtca tcatgagctt tttccaactc 60
ctgatgaaaa ggaaggaact cattcccttg gtggtgttca tgactgtggc ggcgggtgga 120
gcctcatctt tcgctgtgta ttctctttgg aaaaccgatg tgatccttct cgag 174

<210> 647
<211> 201
<212> DNA

<213> Homo sapiens

<220>
<221> unsure
<222> (92)

<400> 647
gaattcgcgg ccgcgtcgac gtaaaaagat tctaacagga aggaggaggg tgtaataaaa 60
tagaaatggc atctctagaa ataatgttca tntttaagat tgattatagg gaggaaaatg 120
aaacacaatg agcctttcaa aaaataagtc atgagacttt gggcaaaaaa caaacaaata 180
aatatgaggt caactctcga g 201

<210> 648
<211> 198
<212> DNA
<213> Homo sapiens

<400> 648
gaattcgcgg ccgcgtcgat ttttgccatg aatgggaaaa gctttttttc tctttttttc 60
tttttcgtgt tttttttcttt tgtttcaaat tcttctcttg gctcattgct cttaatgctt 120
tgtctcccta aaagaggtac ctatgtaaaa acggaagtat ctggccctac gcagtggaaa 180
aagggactaa cactcgag 198

<210> 649
<211> 216
<212> DNA
<213> Homo sapiens

<400> 649
gaattcgcgg ccgcgtcgac gcaatttgaa tataatatgt ctaggtgtag ctttcttctt 60
ttttttagca tttattctgc ttggtatttt cttagcttct cgaatttgtg gttggtatcc 120
gacattgatt tagaggaaat tcacagtcat tattgcttta aatatttctt tctgttccct 180
cttctcctgg ttttcctgtt acatgtacac ctcgag 216

<210> 650
<211> 157
<212> DNA
<213> Homo sapiens

<400> 650
gaattcgcgg ccgcgtcgac cctaatcaga aggcatgttt ttagtatttc ttgggagtgt 60
cagctgtata atgcagcagc tgttcaatcc cttacccttc tctgcaagga cttccttaca 120
gcttggtgca gttctttccc agaggccacc actcgag 157

<210> 651
<211> 158
<212> DNA
<213> Homo sapiens

<400> 651
gaattcgcgg ccgcgtcgac aatcatttca gatttccagg aaagttgcaa aaatatcata 60
aagaaatatc taccccttcac tcagattccc aaatgttagc acttcgccac atctgcctca 120
ttcttctttc tctctcttca cacacacaca cactcgag 158

<210> 652
<211> 227
<212> DNA
<213> Homo sapiens

<400> 652

gaattcgcgg ccgcgtcgac agcccatgaa agattccaga acagagtttt gtaggtaaag 60
ttaagtgtat tacctggaaa gtctgttcca tgttgtataa cccaagtcct gaagaaggaa 120
agttgctgtt tcaaggtatt ttccttctct gtctctttct ttctctctgt gatgcacaca 180
aacacacaca tatacacata caatctctga attcactcaa actcgag 227

<210> 653
<211> 265
<212> DNA
<213> Homo sapiens

<400> 653
gaattcgcgg ccgcgtcgac ctttcccatc cctagattcc tttgtgctgc ttgtctacat 60
tgtatgataa acatcacatt aaatgcaatc tctcccctcc caccctctct ttttttttga 120
gataggatct cgcttgctgt gttgcccagg ctgcagcgca gtggtgtgga tcgtggctca 180
ctgcagcctc accgtctggg ctcaagtgat ccctccccag agcctccact tcccagtacc 240
cgggactata gacacgtacc tcgag 265

<210> 654
<211> 240
<212> DNA
<213> Homo sapiens

<400> 654
gaattcgcgg ccgcgtcgac gtgaggttga gggtcctttc atatattcac gggctgttta 60
tgtttatttc ctgtgagcta gctcttgata tctagttccc tgattcttcc ccaagaaaaa 120
ttccataaat attttcacag gattgtgtta aattcctaga ttaatttgga aagaactgat 180
tttatgttgc atctttttat ccaagaactt gttatgtttc tccatttgtt caacctcgag 240

<210> 655
<211> 190
<212> DNA
<213> Homo sapiens

<400> 655
gaattcgcgg ccgcgtcgac gtgagacctt gtctcaaaaa cagaacaaaa agcaaaacaa 60
ctgtattagg ggccagatgt ggtggctcat gcttgtaatc tcagtgcttt gggaggctga 120
gatgggagga ttgcttgaag ccaggagttc aagaccagcc tggggaacaa ccaaacccgt 180
tctccctata 190

<210> 656
<211> 164
<212> DNA
<213> Homo sapiens

<400> 656
gaattcgcgg ccgcgtcgac tgatttttta aatatatgtc ctttattaaa aatatatgaa 60
gtgcaatgaa agacaaaacc tgtgcattcc tcattgtagc acctattttt aaggcttccc 120
tatctgagtc agctcagtct ttgatgtggg cggaaagtct cgag 164

<210> 657
<211> 172
<212> DNA
<213> Homo sapiens

<400> 657
gaattcgcgg ccgcgtcgac caacagggaa acaggagtgt catcaaaagt aaattccagc 60
cgagacattc tctcctatat gagaagcaaa agtgaaagga aaaatttggg aaaagtaaaa 120
cactgaagag tcatagtatt ctcctgtaac ttggaactgg agtggtctcg ag 172

<210> 658

<211> 165
<212> DNA
<213> Homo sapiens

<400> 658
gaattcgcgg ccgcgtcgac aaataaagta gggatgccat ctgctatatt caaatgtcct 60
tgcagattgt tttttctaat cttatggtca tattctgata ttcttaaatt agatagtgat 120
tgctatgtta acacagagca gatagtattt gcacaatgcc tcgag 165

<210> 659
<211> 272
<212> DNA
<213> Homo sapiens

<400> 659
gaattcgcgg ccgcgtcgac cacacacaca tacacacata tatatatata actttataaa 60
gtatcatgta atatttttta taatttatct ttaattccaa taactaggtt acatagattc 120
taaagttctg aatcctatag gcaagtggtt caattatttt atccatgtcg tctagatacc 180
tccttatttc taaatattat ttcttaattt tttcaatatt agatgttgtt attgattgtc 240
tcacagatgc catccctaat gacgtactcg ag 272

<210> 660
<211> 253
<212> DNA
<213> Homo sapiens

<400> 660
gaattcgcgg ccgcgtcgac taggtttagt tgtcttaaca aaaaccagtc gaggaaaagt 60
ttttagttaa gcagaatact aaataaaaat attaattcag gctcagatat cttttgtttt 120
gatccctttg aaagtcagaa ctggttttgt ttaggagtat tttatgtatt tgatttttat 180
tcttaactat tcccttatga tggtagctgt tctttcagca aacagttatt ttgtgcctat 240
tgcgtgcctc gag 253

<210> 661
<211> 283
<212> DNA
<213> Homo sapiens

<400> 661
gaattcgcgg ccgcgtcgac cgattgattt cgctagtact ttccaaaaat actaaacaat 60
aagatagtag tggagctttg tcctattcct tacttcaatc agatattttt aatgctttcc 120
tattaagatt agatctggct ttagattgaa gcgtacatat tttatcatgt taaagtattc 180
agctgttact gtttttttaa agtttttgtt ttgttttgtt tttgtttttt gttttttttt 240
gaggcagagt ctcactctgt tgcctaggct ggagcgactc gag 283

<210> 662
<211> 120
<212> DNA
<213> Homo sapiens

<400> 662
gaattcgcgg ccgcgtcgac ttgaattcta gacctgcctc tcacctggac cactggagga 60
accttctgat tggtccccat gctttcactc ttgtcccacc tatttctcca cgcactcgag 120

<210> 663
<211> 244
<212> DNA
<213> Homo sapiens

<400> 663

gaattcgcgg ccgcgtcgac aactgcaatt acttctgtac caacctaata gtttgcttag 60
tgtttttatc atgaaaaggt attagatttt taaaatgttt tttctgtctg ttgaggttat 120
cgtgttattt tgctttgttg tattattgtg gtgtataatt ttttttgaga cggggtcttg 180
ctctgtcgcc caggctggag tgcagtggcg cgatctctgc tcactgcaag ctccacatct 240
cgag 244

<210> 664
<211> 193
<212> DNA
<213> Homo sapiens

<400> 664
gaattcgcgg ccgcgtcgac taaactcctg agctcaagtg atccttctac ctcgggctcc 60
caaagtactg gtattacaga cgtgagccat ggcgcccagc ctgtctctgt gttttaacct 120
tcatttagta ttagttctac aaatgattac ttatttaatg ctcaatacta gtctctgtgt 180
cagtatcctc gag 193

<210> 665
<211> 329
<212> DNA
<213> Homo sapiens

<400> 665
gaattcgcgg ccgcgtcgac cctcctcttc tgtcaccagt gccctcgccc cctccgatgt 60
catcacctca cccgggttcc ttaccgtctt catttgcacc tgaaacctac tttggagaat 120
atacagattc cagcgataat gactcagtcc agcttagaaa ttctgctgag tctgtttcag 180
aagatgatac aactgaatca cagaattatt ttggctcatt gagaaaaaat aaaggaagtg 240
gcacatggga ggaaaagccc aaatcacatg aagctatcca agctctgaat acatgggaag 300
taaataaagt gacaacttct ggactcgag 329

<210> 666
<211> 189
<212> DNA
<213> Homo sapiens

<400> 666
gaattcgcgg ccgcgtcgac tgcatggatg tgtatgtgtt tgtccccagc caaaatgacc 60
tttctcgtgt ccattattct gttatgtgtc cattactgtc ccacctccat gcctttcccc 120
agggtgttcc ttaaccctgg aatgctcatt tcccctcttt tatctctgcg tgtaaacccc 180
aaactcgag 189

<210> 667
<211> 218
<212> DNA
<213> Homo sapiens

<400> 667
gaattcgcgg ccgcgtcgac tatacattca gaaaagtaca tagttcagtg ctttttctac 60
taagtgaatg catctgtctt taaaaagtga ccacccccat aacagaaaat agaatgttac 120
cagcattcca aagacccctt ctctgttacc tctccctcct tctccaagcc acactccttt 180
ctgacttctg tcactataga tcaattggcc aactcgag 218

<210> 668
<211> 129
<212> DNA
<213> Homo sapiens

<400> 668
gaattcgcgg ccgcgtcgac cctcatctgg cgcattttta ttgcaagatc acaaatggca 60
agaaatatct ggtactttgt ggttagtctg tgttacaagt tttgtcata cttccgagca 120

acactcgag 129

<210> 669
<211> 251
<212> DNA
<213> Homo sapiens

<400> 669
gaattcgcgg ccgcgtcgac cagtctggtg gtgggtgcgg agtctgcggc cgttcccgcg 60
gcctcctcct cctccccgtt cccttcaccc ccaccccgca cccctttccc catcccggct 120
ccgtcaccct cccgtccccc acactcagga caagaatgcc ctgcccggaa caacccagca 180
gcgcctagat ggctttggtc acggtccagc ggtcacctac ccccagcacc acctccagcc 240
cgcaactcga g 251

<210> 670
<211> 175
<212> DNA
<213> Homo sapiens

<400> 670
gaattcgcgg ccgcgtcgac ccctatgcca aaatctccct atcattaaaa tacaacaccc 60
caaccctagc aaaaccattc ctgataccac gtgttgctat tatccactat ctctcctcca 120
gtcctatcaa aacttgggtt tgctgtttct gatgctatta ttgtctctgc tcgag 175

<210> 671
<211> 211
<212> DNA
<213> Homo sapiens

<400> 671
gaattcgcgg ccgcgtcgac cttgcctggc aggagtggct tctaagaaga gctgttgatt 60
gttgaacttt gacgctaagg tgagggtttg gatttttgg ggatagcttt attttggtat 120
aattttagaa aagtttgaga atagtacacg agttcctatt taccсttcac ctagagtcac 180
gatgatttgc gttttgcccc atttactcga g 211

<210> 672
<211> 296
<212> DNA
<213> Homo sapiens

<400> 672
gaattcgcgg ccgcgtcgac caccagacca gttctgtgcc tccatctgtt ttctgacttg 60
tgcgatcggt tggcagcccc atcagctgct acctcctctt tgtctctttg cccgtgtgtt 120
tatgctattc aaagtacctc tattttaatg gagttttggg acctatcaaa tataaatata 180
ccatttcctc aagaccattt ttcttttcta accagtaaat ttatatggca tttatttttt 240
cttacagaag cttccttttt tttctctttt tcttttcttt tttggaggct ctcgag 296

<210> 673
<211> 176
<212> DNA
<213> Homo sapiens

<400> 673
gaattcgcgg ccgcgtcgac gagatgaatc caggctataa catttaacaa gaccttatta 60
aaagcttcaa gatgttagcc tttatctgtt ccatatctag cttacttggt tgtttttggg 120
ggatcacatg tctgtcctcc aaactggaaa cgtctaactc tccaggagta ctcgag 176

<210> 674
<211> 137
<212> DNA

<213> Homo sapiens

<400> 674
gaattcgcgg ccgcgtcgac cccatctatg aagaactgaa agaccgcagc cgtagaagaa 60
tgatgaatgt gtccaagatt tcattttttg ctatgtttct catgtatctg cttgccgccc 120
ccatcctctg cctcgag 137

<210> 675
<211> 202
<212> DNA
<213> Homo sapiens

<400> 675
gaattcgcgg ccgcgtcgac agcattttaa gctttgtaca ttcaaagtca tgcatatctc 60
tgagaggtcc tttaatgtga agatttttg cttgcatcac ttcctctgga acatcttcat 120
cttctgtttg ctaatttcta cttttagtta tttattttt aaattaaatg tcatatgggc 180
ttattattgg gatagcctcg ag 202

<210> 676
<211> 227
<212> DNA
<213> Homo sapiens

<400> 676
gaattcgcgg ccgcgtcgac aaaagaagtt aactagagtg ccatcaaagt cactggactt 60
gaataaaaat gaatatcttt ctctggacaa aagcagcact tcagattctg ttgatgaaga 120
aaatgttcct gagaaagatc ttcatggaag actttttatc aaccgtattt ttcatatcag 180
tgctgacaga atgtttgaat tgctctttac cagttcacgc tctcgag 227

<210> 677
<211> 556
<212> DNA
<213> Homo sapiens

<400> 677
gaattcgcgg ccgcgtcgac agttggaaag cttgcagcat ctggatcaat tacaatgcaa 60
gaacattgga gctatgtcaa gctacctctt catagtgaaa tatgagttgc ctttggtgat 120
ccaggcatta acgaacattg aagataaaac tggattgtgg tatctgaacg ggaactattt 180
ggttctgttg gtgtcattgg tggtcattct tcctttgtcg ctgtttagaa atttaggata 240
tttgggatat accagtggcc tttccttgtt gtgtatggtg ttctttctga ttgtggtcat 300
ttgcaagaaa tttcaggttc cgtgtcctgt ggaagctgct ttgataatta acgaaacaat 360
aaacaccacc ttaacacagc caacagctct tgtacctgct ttgtcacata acgtgactga 420
aaatgactct tgcagacctc actattttat tttcaactca cagactgtct atgctgtgcc 480
aattctgatc ttttcatttg tctgtcatcc tgctgttctt cccatctatg aagaactgaa 540
aaaccgcagc ctcgag 556

<210> 678
<211> 196
<212> DNA
<213> Homo sapiens

<400> 678
gaattcgcgg ccgcgtcgac atttgtttta ttcagataca gtttacatgc agtaaaattt 60
attctttttt aggtttgcag tttgatgagt ctgacaatgt atagtcatat aaccaacact 120
acagttgaga tatagaatat taccccagaa agttccctgt accttttagt gattctcttc 180
tccccacgt ctcgag 196

<210> 679
<211> 226
<212> DNA

<213> Homo sapiens

<400> 679
gaattcgcgg ccgcgtcgac tgctttagta ataaattgcc taccagtttt gtaaagcttg 60
gtatatctta tttttctttt gacttttgtc aaacacagaa gtaatataag tcccctcgtat 120
ccaactagca gctcctcagt tatcaattcg tggcccatct catttcacct gctcttattt 180
tttagctttt cattttgtaa tgcttgtatt caacacagtg ctcgag 226

<210> 680
<211> 113
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (104)

<400> 680
gaattcgcgg ccgcgtcgac actaaggtgt gagtcactgt gcccggcctg atgatttttt 60
tatcatatct gtgtttctgc agagttttag tggctaaaga aagnacactc gag 113

<210> 681
<211> 196
<212> DNA
<213> Homo sapiens

<400> 681
gaattcgcgg ccgcgtcgac taagaatgtt atgttatcaa aataccttta atagtcacct 60
tatagcactc tgctatttgt catccagttt tatgcatcaa acacaatata ccttttggtt 120
attcctaact gctcaatggc aaacacacgt tccagaatat agtcatggga tttacaacat 180
aatgacctgc ctcgag 196

<210> 682
<211> 226
<212> DNA
<213> Homo sapiens

<400> 682
gaattcgcgg ccgcgtcgac tgagaatgtt ggttagtggc agaagagtca aaaaatggca 60
gttaattatt cagttatttg ctacttgttt tttagcgagc ctcatgtttt tttgggaacc 120
aatcgataat cacattgtga gccatatgaa gtcatattct tacagatacc tcataaatag 180
ctatgacttt gtgaatgata ccctgtctct taagcacaca ctcgag 226

<210> 683
<211> 196
<212> DNA
<213> Homo sapiens

<400> 683
gaattcgcgg ccgcgtcgac taaaatacag ttgaagattt ggctgcattt ttgccttacg 60
attacatacc ttaataatta caactcaatt gaggggtcca tatatattct ttctcatttt 120
ctggcagtaa atcatattca tcatatactt cccaattttg cacacacaaa aaatgaaaat 180
agccccctat ctcgag 196

<210> 684
<211> 193
<212> DNA
<213> Homo sapiens

<400> 684

gaattcgcgg ccgcgtcgac aactttattc caaaagtagt gcatgtggag aaagaatcta 60
gactttcttg tatacatttt tctcttctcc agtaataaac aattaccttt catttatact 120
ttgataacct gtatttaatt taaaaaaaaa cataaaaatg aggaaccaag tgaaactacg 180
gatattcctc gag 193

<210> 685
<211> 258
<212> DNA
<213> Homo sapiens

<400> 685
gaattcgcgg ccgcgtcgac acttctgact ctgtcagtat tccctatccc tgctcctgat 60
ttcttctttt tcatagccgt cgccttaaca cacattctac atttgactta tttttctttt 120
taatcatcta cgtccctcca ctaggctgta aactacagga tgacaaaggt tttgtctgtt 180
tttttcattg ctggctgttc aatatctaat ctagtgcctg gcatgtcatg gacaattaat 240
aaatgtgaac acctcgag 258

<210> 686
<211> 197
<212> DNA
<213> Homo sapiens

<400> 686
gaattcgcgg ccgcgtcgac gtattaatag tattcctaat gtgtgctgca gaaatggcta 60
tgagcctctt aaatttacat ttgcaactta aaggtagttt tagaaggaag tacaaattgg 120
ctttcatctt gcaaacaatc gttttttact tcattatctt aatttgcttt gtcactcata 180
aaaaggaaac actcgag 197

<210> 687
<211> 304
<212> DNA
<213> Homo sapiens

<400> 687
gaattcgcgg ccgcgtcgac agaagtaaag atcctgaata acttctcaag gttatagtca 60
cacagctagt aagaagcaaa gtggcattgt taatacctcc caccattaaa aaaaaaaaag 120
gtggttatag caaagtatac actagaataa tttgagttgt ttgagatgga tacaggtatc 180
tctttttta aattagtagg tacaaacaaa gaacttgaaa accacatcct tttagattct 240
ttgttgtttc taggagtgta tttcaaggtg gttagtaatt tgtgtttccc tgggccatct 300
cgag 304

<210> 688
<211> 156
<212> DNA
<213> Homo sapiens

<400> 688
gaattcgcgg ccgcgtcgac gttaaacctt ggctaatttt attgtctttt tgtagagatg 60
ggatttcacc atcttgccct ggctgttctt gaactcctgg gctcaagctg tcctcccgcc 120
tcaagcctcc cgaagtgctg ggattgcaga ctcgag 156

<210> 689
<211> 329
<212> DNA
<213> Homo sapiens

<400> 689
gaattcgcgg ccgcgtcgac atgggacaga gtccaagcat gatggtgggc atgcccatgc 60
ccaatgggtt tatgggaaat gcacaaactg gtgtgatgcc acttcctcag aacgttgttg 120
gcccccaagg aggaatggtg ggacaaatgg gtgcacccca gagtaagttt ggcctgccgc 180

aagctcagca gccccagtgg agcctctcac agatgaatca gcagatggct ggcatgagta 240
tcagtagtgc aacccctact gcaggttttg gccagccctc cagcacaaca gcaggatggt 300
ctggaagctc atcaggtcat tctctcgag 329

<210> 690
<211> 191
<212> DNA
<213> Homo sapiens

<400> 690
gaattcgcgg ccgcgtcgac gttaaacttt acattttaaa ttaatttatg tttgtatgta 60
tttatttgtt gagaaagggt ctctctctgt cacccctact agaatgcagt ggcgccatca 120
tggcttactg cttcctgggc tcaagctgtt ctcccatttc agcctcccca tgcaccaccc 180
tcatgctcga g 191

<210> 691
<211> 173
<212> DNA
<213> Homo sapiens

<400> 691
gaattcgcgg ccgcgtcgac atactgtata atttgggtga ggtctacaaa attgggtgtg 60
actttccttt gcaaatggat ttctcctggg gaattttctt ggctgttctg gaaatgcttt 120
cccacagctg ggtaactgtt ctaaatggct ttgataatgc tcacaccctc gag 173

<210> 692
<211> 349
<212> DNA
<213> Homo sapiens

<400> 692
gaattcgcgg ccgcgtcgac gtgatttata atgacatcct gagaaaagtc agtgaaactc 60
atttctaacg aataccagat ttcttaaaat agtcaagtat ttttcttttg tgtatgatga 120
gatattaact tggtgttatt tcattttttt tttttaagga gtcattctac cctgttctat 180
ctttacttat gtgaaaatgt ttaaactatg agtttttttc atgtgccttc ttttggagta 240
atgtcaactt ttaaatacac atgtttaaat aacttagagt gtaataaatt gtgtttaata 300
tatactgtag ataatgatgg ttaaatgctt tgttaacaca tgtctcgag 349

<210> 693
<211> 272
<212> DNA
<213> Homo sapiens

<400> 693
gaattcgcgg ccgcgtcgac cctgcctcta agataaaagc tcaacttctt aacagtgtac 60
agtgtgcaac ttccaacctt tttatctgtt ctctccacct tcagtttagc gtcattccaa 120
aaccacaccc ttgcaaagct ttgtactccg caccccagat gatctccagg cagctcagat 180
ctctttcctg cctttgccct gcactgttcc ccggtacttc ctcctttatt gtagcactca 240
gctccccagc caatctgtcc atcgtcctcg ag 272

<210> 694
<211> 212
<212> DNA
<213> Homo sapiens

<400> 694
gaattcgcgg ccgcgtcgac cagagaacag gcaaaaaatt actgaagact ttaacagcat 60
ctgaaatgct acctttattg gatcattgga atactcaaac taaaaaagta tcactcagag 120
aaataatgtc agaagaaatt gccttacagg aaaaacataa tttgaaaagg gagaccctta 180
tgtttgaaaa agattgtgcc actcaactcg ag 212

<210> 695
<211> 226
<212> DNA
<213> Homo sapiens

<400> 695
gaattcgcgg ccgcgtcgac catattttgt ttgtccattc atcaggtaat ggatatttgg 60
attgttgcgg gtactgttat tgctactcct attttatttt agaaatacga aaagtgaatc 120
tcagggaagt aagttcacca aggtcagaca aatagcaaag ctgagacgca cacaaactta 180
agtgtgtctg atgctatatt tctttctctt aaccactgcc ctcgag 226

<210> 696
<211> 194
<212> DNA
<213> Homo sapiens

<400> 696
gaattcgcgg ccgcgtcgac tgaagagatt atattcctct acatcaggtc ccaaagatgc 60
agttctgtgg gcaactggga agttggaaac tgaatatggt gaaaatgatc ccgtcactat 120
tcctaggagc gtggctgtct cctcagcact cacgagtgtg tggtgtagta gggggcgggg 180
gtatggaact cgag 194
<210> 697
<211> 196
<212> DNA
<213> Homo sapiens

<400> 697
gaattcgcgg ccgcgtcgac tctctaccaa gccctttgtc ttgtgaattc tcttcctctg 60
ctgattctgc atggctttct atcctattca gtatcaagtt ctgatttttt gtttattttg 120
ttttcatttc atttctaagt attgctcaat gatcccgtcc tctgtgatat ggtttggctg 180
tgtccctact ctcgag 196

<210> 698
<211> 212
<212> DNA
<213> Homo sapiens

<400> 698
gaattcgcgg ccgcgtcgac cttaattcct actacaaagc taaataatat ataaaataaa 60
tagaaaaaat cagtgtctca agttatccct taatgtgggg aataaaatgt ctgaaagtca 120
tttatgaact aattttagaa tgctctacta ctggaaatat ttattctttc aacactacat 180
ttgttgtttt agatgcttgc caacaactcg ag 212

<210> 699
<211> 300
<212> DNA
<213> Homo sapiens

<400> 699
gaattcgcgg ccgcgtcgac ctaagtactt tttcttttttg aagccattgt aagtgtaatt 60
attttcgttt cattttcaga ctgttcattt ctagtgtatg caactaattt ttgtgtattg 120
atgttatctc ccacaacttt gaacttgctt attagctcta acagttattt tgtagattct 180
tcagggtttt cttctacaca taggattatg ttacctgttt tttgtttttt tgtttttgtt 240
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<211> 124
<212> DNA
<213> Homo sapiens

<400> 700
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cgag 124

<210> 701
<211> 214
<212> DNA
<213> Homo sapiens

<400> 701
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gctagactgt acttatcaat ttgttcacta ctgttctatg gctatctctg gaagacccctt 180
taggtacaat aaggaagatg ggagagtact cgag 214

<210> 702
<211> 286
<212> DNA
<213> Homo sapiens

<400> 702
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gcaggtggct tctgtgttct tctgacaaat gattcctgct tctccagact ttagcagcct 180
cctgttccca ttcttggtca cagctctagc cacagcagaa ggaaaggggc ttccagaaga 240
atatagcacc gcattgggaa acagcagcct ctacccctcc ctcgag 286

<210> 703
<211> 158
<212> DNA
<213> Homo sapiens

<400> 703
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aggaggccag aaagttgttt tcaaacctaa gcggtatagc cgagaccatg tggtggaagg 120
ggaaccgtat gctggttatg atagtcacaa tgctcgag 158

<210> 704
<211> 439
<212> DNA
<213> Homo sapiens

<400> 704
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ggatgttgga cgctatactg atgttagtac gcggtacaaa gtgagcacat cacccctcac 360
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gattgacaat aaactcgag 439

<210> 705
<211> 192
<212> DNA
<213> Homo sapiens

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agcctgtgtt gggaaatcct gccctgtgct gcctcttgtt gcagagatcc tatctggata 120
aagtgctggg taaccaggaa tcagaacctc tggaggacga gtatgacttc ttttctgtcc 180
ctgctgctcg ag 192

<210> 706
<211> 205
<212> DNA
<213> Homo sapiens

<400> 706
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gagagatcta gaacagatgc ctcaacgacg aagaatgaac agcactggtg gtcagacacc 120
cagaagagac ctggaaaagg tgctgacagg agaggagaag gctcttagac ctggagatcc 180
tggattctgt gcccgtgacc tcgag 205

<210> 707
<211> 279
<212> DNA
<213> Homo sapiens

<400> 707
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atggagcgag agaagaaagg aagaaaggtc acagagatgg aaggccaggc aaaagaattg 120
tcagcgaagt tggccctttc cattccagct gaaaaatttg aaaacatgaa gagctcatta 180
tcaaatgaag tgaatgagaa agcaaaaaaa ttagtagaaa tggaaagaga acatgaaaaa 240
tcacttagtg aaattagaca gttaaaaaga gaactcgag 279

<210> 708
<211> 228
<212> DNA
<213> Homo sapiens

<400> 708
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ccgttcactc aacaagccaa tctgatccca gggttgaacc tcagcgcact tggcatcttt 120
tcaacaggac tgtccgtgct atctccacca gcagggcccc gcggagctcc ccccgctgcc 180
ccctaccacc ccttcactca acaagccaat ctgaccccag ttctcgag 228

<210> 709
<211> 189
<212> DNA
<213> Homo sapiens

<400> 709
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gagaaaagcg agaagagatc cgagaagata ggaatccaag agatggacat gatgaaagaa 120
aatcaaagaa gcgctataga aatgaaggga gtcccagccc tagacagtcc ccgaagcgcc 180
caactcgag 189

<210> 710
<211> 293
<212> DNA
<213> Homo sapiens

<400> 710
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tgagaaataa ataaattgca caaaatagac agcctgtcat tttctaggtt aacttgagca 120
agatgaatat tttcctcaga tctctgctag tcctggtgtt ttctcttaaa actagctgta 180
tcttgtcgga ggtccctgaa agtgaattaa ctttggatct cttaggtatc tgtgtttgga 240
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<210> 711
<211> 143
<212> DNA
<213> Homo sapiens

<400> 711
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tcatgtatca tctctttttg aaaggagtcc tgtcttgcct agctctgtac aattttcttc 120
tcatggtact ctgtgttctc gag 143

<210> 712
<211> 195
<212> DNA
<213> Homo sapiens

<400> 712
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cagatcaact taaggagatt gcaaaattac gccagcagtt gcagagaagt aaacacagca 120
gtcggcatca tcgagataaa gaaagacagt ctccatttca tggcaaccat gcagctatta 180
accagtgtcc tcgag 195
<210> 713
<211> 170
<212> DNA
<213> Homo sapiens

<400> 713
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aaatataact ccattaaaag tttaaaattt catgggagaa aatataataa ggtaaagagg 120
tagaatcact ttcagactta agaataatgt tgatttccca aatgctcgag 170

<210> 714
<211> 170
<212> DNA
<213> Homo sapiens

<400> 714
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cagaaactag gcactttaga ggtgcacttg catggcaggc tgggccccct tttctatatt 120
ttattttcct ttttagtata gtggtactta aaatcactgg ttcactcgag 170

<210> 715
<211> 200
<212> DNA
<213> Homo sapiens

<400> 715
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agaggacaac tttggttctg gaactggttt ctatttgtca aatcagtttc cttttaacat 120
aattaatccc tttaacaaaa agccgtctat gggattaaaa gacacgtgaa atgatacttt 180
tattattccc attactcgag 200

<210> 716
<211> 232
<212> DNA
<213> Homo sapiens

<400> 716
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cctgcagcaa ggtgaaggag tcctctccag cttccgaacc acgtggcagg agtttgtgga 120
ggatctgggc ttctggagag tattgctgtt gatcttcgtc attgctttgc tgtctcttgg 180

cattgcttat tatgtgagtg gggtgctacc cttcgtggaa aaccacctcg ag 232

<210> 717
<211> 332
<212> DNA
<213> Homo sapiens

<400> 717
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ttttggtcat tggaacagcc tatttggaag ctcaaggaat atgggagcca tttcgaaggc 180
ggctatcctt tgaggcctcg aacccgccct tcgatgtggg aaggccattt gatctcagga 240
gaatcgttgg tatttcatct gaaggaaact tgaacacact cagctgtgac cccggtcaca 300
gtagggggtt ctgtggagca ggcttactcg ag 332

<210> 718
<211> 155
<212> DNA
<213> Homo sapiens

<400> 718
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tattccagaa gtccaacaag agaatataat caatcctcaa gacctaacag tgaatctagt 120
tgctaatgta cctcaagatg gagaagatgc tcgag 155

<210> 719
<211> 188
<212> DNA
<213> Homo sapiens

<400> 719
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cagagcaaga agggagacaa gataagccaa tggacacgtc agtgttatct gaagaaggag 120
gagagccttt tcagaagaaa cttcaaagtg gtgaaccagt ggagttagaa aacccccat 180
cactcgag 188

<210> 720
<211> 176
<212> DNA
<213> Homo sapiens

<400> 720
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agcctccccg agtgctggga ttaaagacgt gagccacggc acctggcctg aattttcctc 120
aaattcaaaa aatcctgatg aaggtttggc taaaatcttt ggtgagctac ctcgag 176

<210> 721
<211> 226
<212> DNA
<213> Homo sapiens

<400> 721
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aaaggttttt ccctttgga tcttaattcc accgtgtata aatatggatg agtggatatg 120
ggttagggct gaagttattc tcattaatat tcatcattag tggtatcttg tttcatttac 180
tataaaacac attgcatcaa tgcactttaa aaaaatctta ctcgag 226

<210> 722
<211> 222
<212> DNA

<213> Homo sapiens

<400> 722
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ctgccattga aaaaaatggt ggtgttgtta ctacagcctt ctatgatcca agaagtctgg 120
acattgtatg caaacctgtt ccattctttc ttcgtggaca acccattcca aaaagaatgc 180
ttccaccaga agaactggta ccatattaca ctggtactcg ag 222

<210> 723
<211> 184
<212> DNA
<213> Homo sapiens

<400> 723
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catctgtctg tgcctctgtt tctttttgga gatagagtct gtctctgtca cccaggctgg 120
aatgcagtgg cgcgatctcg gctcactgca acctccacct cccaggttca agcgatatct 180
cgag 184

<210> 724
<211> 304
<212> DNA
<213> Homo sapiens

<400> 724
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ggatgctgta gatgatatgg aagaaggtct taaagtccta atgaaggcag accctggtag 120
acaggaatcc ttgcaagcag aggttatccc agatccaatg gagggagagc aaacctggcc 180
cactgaggag gagctgagcg aggcaaagga tttcttgaag gaaagttcta aggtggtaaa 240
gaaggtcccc aaaggaacat ccagttacca agctgaatgg attttggatg gtggcagact 300
cgag 304

<210> 725
<211> 234
<212> DNA
<213> Homo sapiens

<400> 725
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gactgccaac aggaagtgct gtttggctag tttcctccca cttgtctacc cctcctttgt 120
ccttagacca acatgtttac ctctctgctt tgccaactta gccagcaggc catccccggc 180
cctaacgtct cctggccatt atctcttagt tatggctttc acgctctcct cgag 234

<210> 726
<211> 160
<212> DNA
<213> Homo sapiens

<400> 726
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actgaaagaa ttgtaccctt taagatttgt aggccaagtg cagtggctca tgcctgtgat 120
cccagcactc tgggaggtcg aggtgggtgg atcgctcgag 160

<210> 727
<211> 335
<212> DNA
<213> Homo sapiens

<400> 727
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acctttttttt ttttctttaa ttcctggtgc tcctttatca ccttctctaa tcttttaatg 120
tgtctgtttg caatatgggg gttagacttt ttttatcatt accttttctt ttccttggct 180
gtacatttac ctttttcaca aatactgtaa gctgtcctgc tccttgcagg actacagggc 240
ctgggcaggg ccccccagca acaattcacc cacagtgcac ctgcacatgc ctttcctaca 300
tgcttgctct gtctcgaact agtcacaatc tcgag 335

<210> 728
<211> 425
<212> DNA
<213> Homo sapiens

<400> 728
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caaccagctg ggacctgacc tgcctccagc cacagctcca gcacccagta cccgaaggcc 300
tccagccccc aatctgcatg tgtcccctga gctcttctgt gaacccagag aggtccggcg 360
ggtccagtgg ccagctaccc aacagggtat gctggtggag agaccttgcc ccaagggaac 420
tcgag 425
<210> 729
<211> 137
<212> DNA
<213> Homo sapiens

<400> 729
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tgatcaagaa gtgtctcctg acagagctga ccctgaggct gcttgggaac caacagaggc 120
tgaagctaga gctcgag 137

<210> 730
<211> 196
<212> DNA
<213> Homo sapiens

<400> 730
gaattcgcgg ccgcgtcgac cctgggcaac atagtgagac ccatctctaa agaaacaaac 60
aaaaaatcaa ttgtatttct agatactagc agcaaacaac ttaaaaatga aaattagcca 120
ggcgcggtgg ctcacgcctg taatggcagc actttgggag gccaaggtgg ttggatcacg 180
aggtcaggag ctcgag 196

<210> 731
<211> 439
<212> DNA
<213> Homo sapiens

<400> 731
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ctggactgaa accctggcag accagagccc agggccaggc cccgagtacg cagacgtggt 120
gtttctggtg gacagctccg attacctggg aattaagtcc ttcccatttg tgagaacttt 180
tctcaacaga atgatcagca gcctccccat agaggccaac aagtaccgcg tggccctggc 240
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catgctgaac cacctgaaga agaacttcgg gttcatcggt ggctccctga agatagggaa 360
cgccctgcag gagctcacag gacctatttc tctgctccca gaagtggaag agacaagaaa 420
cagttccccc aaactcgag 439

<210> 732
<211> 259
<212> DNA
<213> Homo sapiens

<400> 732
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tgcccatgga gcggttctga gattgaagga tggcggccgc taagcctgca ttggtgagag 120
gacccccaag ctctcgacag accctgagcc agtcttgtaa gcctttgttc tttcttgggg 180
ctatggccgc tcggcactcc tttgtggctt gctcatagat tagctgttct atcagaggcg 240
cagcttgctc tgactcgag 259

<210> 733
<211> 231
<212> DNA
<213> Homo sapiens

<400> 733
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tctgaagccc cacctctgga gcgctgcctc tgatcacccc agcccacagt gatctgagtt 120
cacagagcac atcctgtttg aatgccccat ttgaatcaca gcctattcct ctttttgagt 180
gttggttgtg ccttaagtgc acagatggct tttcaccagc tggacctcga g 231

<210> 734
<211> 352
<212> DNA
<213> Homo sapiens

<400> 734
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cgaagagatg atgcctggga atttttgtgt gaaaggactt gaactgtttt cattgttcct 120
attcagagat attttggaat tatatgactg gaatcttaaa ggtcctttgt ttgaagacag 180
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aggcaaggaa gtgttatcca tgcaccagat ccttctctac ctgctgcgct gcagcaaggc 300
tctggtgccc gaggaggaga ttgccaacat gctccagtgg gaggagctcg ag 352

<210> 735
<211> 241
<212> DNA
<213> Homo sapiens

<400> 735
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tcgaaacccc ggtcaccctt ggggccagtt tgtccaggca ttcctctggc tccatcactc 180
ccagcccgac cccgtcttcc gggcttcccg gccggaccag gcgggccttg cacacctcga 240
g 241

<210> 736
<211> 465
<212> DNA
<213> Homo sapiens

<400> 736
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ggcgctttgg agggacatct ccagccagct ccggcaaagc tcgag 465

<210> 737
<211> 509

<212> DNA
<213> Homo sapiens

<400> 737
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ggttttgggt caccgggtga ctttgccctg tctgtactca tcctggtctc acaacaggca 180
acagcatgtg ctggggggaaa gaccagtgcc cctactccgg ttgcaaggag gcgctcatcc 240
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tcccgagagg tgatgtctcc ttgaccatct taaaccccag tgaaagtgac agcggtgtgt 360
actgctgccg catagaagtg cctggctggt tcaacgatgt aaagataaac gtgcgcctga 420
atctacagag agcctcaaca accacgcaca gaacagcaac caccaccaca cgcagaacaa 480
caacaacaag ccccaccacc actctcgag 509

<210> 738
<211> 343
<212> DNA
<213> Homo sapiens

<400> 738
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ctgcagccaa tcatttgctt tggcacattc tctaaggtaa gatatgctta gtttcatatt 120
gtgtagcctg cagaactgca ccactaatgc ccattggctg ctagattcac tggataacct 180
ctttatttcc tgttgctgaa tgctgttcca tgtaccttct tctaagagaa caagcaattc 240
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gataaagctg tactgagcga ttgaattcta gacctgcctc gag 343

<210> 739
<211> 106
<212> DNA
<213> Homo sapiens

<400> 739
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aatgctgcaa ggtttccgcc tctgcgttcc cgttgtgctg ctcgag 106

<210> 740
<211> 479
<212> DNA
<213> Homo sapiens

<400> 740
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ggtttgtgcg tgcatatgtg ccgggtaccc ggtggggcgg gtgcccagta agtgctcgga 180
ctcgcagggg aagcgcccac ggggacggat tggttgtttt ttcctgtatg aagcggttgg 240
caccactgaa gtgaccgaat gaggtgagag accttggcct gggaaccgac tcttccggag 300
gagatggggg ttgggggaag gaggaagaaa gaaagcaagt ataaaaggga aagatggagg 360
accaaggtgg gggtgggggc tcctgtatgt gggtgccttt gcatttatgt gtatattgaa 420
aagaatggat gaagaggagt agtcagttga gtgttgggag aaaaatgaga ctactcgag 479

<210> 741
<211> 195
<212> DNA
<213> Homo sapiens

<400> 741
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ttttcgaaaa tgataggcaa aagttgggga acattacatg atatccaaaa cacgtttatt 120
ctatatctgt gtttcagatt tcatctttta gcacttggtt tacgagttac tgtgctaact 180

ccacaaactc tcgag 195

<210> 742
<211> 592
<212> DNA
<213> Homo sapiens

<400> 742
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tgccctgcct ggcctcctgc atgcccaaca agcctgctcc cgtggggcct gctatccacc 120
tgttggggac ctgcttgttg ggaggacccg gtttctccga gcttcatcta cctgtggact 180
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<210> 743
<211> 367
<212> DNA
<213> Homo sapiens

<400> 743
gaattcgcgg ccgcgtcgac gtgaccttgg ataaattcct taagttcttt ggtgtttctt 60
catctttttt taaataatag ctttattgaa gtatacagtc atgttgagaa atgcgtcatt 120
agacaatttc gtacatgcgt gagcatcaca gagtatactt atattaaccg agaggtataa 180
cctaccccac acctaggcta tatgatatag tctattgctg ctagtctgca aacatgtgca 240
gcatgttact gtactgaata ctgtaggcaa ttgtagtaca atggtatttg tttatctgaa 300
catatctaaa ctaacaaaag tacagaaaaa tgtgatataa cagattttaa aaaggtacgc 360
gctcgag 367

<210> 744
<211> 655
<212> DNA
<213> Homo sapiens

<400> 744
gaattcgcgg ccgcgtcgac tccaaatgag aaaaaagtgg aaaatgggag gcatgaaata 60
catcttttcg ttgttgttct ttcttttgct agaaggaggc aaaacagagc aagtaaaaca 120
ttcagagaca tattgcatgt ttcaagacaa gaagtacaga gtgggtgaga gatggcatcc 180
ttacctggaa ccttatgggt tggtttactg cgtgaactgc atctgctcag agaatgggaa 240
tgtgctttgc agccgagtca gatgtccaaa tgttcattgc ctttctcctg tgcatattcc 300
tcatctgtgc tgccctcgct gcccagaaga ctccttaccc ccagtgaaca ataaggtgac 360
cagcaagtct tgcgagtaca atgggacaac ttaccaacat ggagagctgt tcgtagctga 420
agggctcttt cagaatcggc aacccaatca atgcacccag tgcagctgtt cggagggaaa 480
cgtgtattgt ggtctcaaga cttgccccaa attaacctgt gccttcccag tctctgttcc 540
agattcctgc tgccgggtat gcagaggaga tggagaactg tcatgggaac attctgatgg 600
tgatatcttc cggcaacctg ccaacagaga agcaagacat tcttaccaac tcgag 655

<210> 745
<211> 268
<212> DNA
<213> Homo sapiens

<400> 745
gaattcgcgg ccgcgtcgac cattgtcaaa cttgaccttt taaataatct gatttaactc 60
ctttttaatt taaatcctgt tttaattcat gacactggaa gctatatata taataacctt 120
tttttcattt tttagttgga caactagtgg tttgaagagc cagggccgtc tgtcagtagg 180

aagtaatcgt gatcgagaga tcagcatgtc tgttggtctg ggaagatcac aattagattc 240
taaaggagga gtagttggag ttctcgag 268

<210> 746
<211> 181
<212> DNA
<213> Homo sapiens

<400> 746
gaattcgcgg ccgcgtcgac ataagttaaa gatgtatagc gtgtataata ccttactata 60
ccttatcata gtgattcacc ttaccatagt gaaccttaaa atagtatact tctggccagg 120
cgcggtggct tacgcctgta atcccaacac tttgggaggc agaggtgggc cgaacctcga 180
g 181

<210> 747
<211> 694
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (35)

<400> 747
gaattcgcgg ccgcgtcgac ataaaaagaa aagtnagggg ggtattgaaa tcgttaaaga 60
gaaaacaact aggagcaagt caaaggagag gaaaaaatct aaaagcccat ccaaaagaag 120
taagtctcaa gatcaagcaa ggaaatcaaa atcccctacc cttagaaggc gatctcaaga 180
gaaaattggt aaggccagat ctcctactga tgataaggtt aaaattgaag ataaaagtaa 240
atcaaaagat aggaaaaaat ccccaattat aaatgaaagt agaagtcgcg atcgaggtaa 300
aaaatccaga tccccagttg atttaagagg taaatccaaa gacagaaggt cacggtccaa 360
agagagaaaa tcaaaacggt ctgaaactga taaagaaaag aagccaatta aatctccctc 420
taaagatgct tcatctggga aagaaaatag gtcacccagc agaagacctg gtcgtagtcc 480
taaaagaaga agtttgtctc caaaaccacg tgataaatca agaagaagca ggtctccact 540
tttgaatgat agaagatcta agcagagcaa atccccctcg cggacactgt ctcctgggag 600
aagagccaag agccgatcct tagaaagaaa acgacgagaa ccagagagga gacgactttc 660
ttctccaaga tccccttaag aacacgacct cgag 694

<210> 748
<211> 714
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (672)

<400> 748
gaattcgcgg ccgcgtcgac cataaagtta attctcataa tttttgctgg gtttaataat 60
tcaaaatatg aatcaaaatt tttatttatg cagtttcatt ctattaaaat tatctgctaa 120
attaatatta agtagtccta tagcatatat tatttaataa ttgcaagtag tgacatatca 180
taaataaact gtataatatg tattattgat tctgttattt tatttttcct agcaatgcac 240
agggaaccag taaatttcac aagcagagaa tactaacttg tcatttattt aatattctaa 300
acaaatgaag ccgcctctat aagtgaattt tctggacttc taaagatgag cattgttgag 360
tttaataact caaatttttа ttgtgttaag taaagtatat taaatataac ctcaccctaa 420
tgactcagct gtaattaaaa aagaattcac gaccagcctg ggtaacacgg tgagacccca 480
tctctacaaa aataaaaaat aaaaatgaaa attaaaaaaa attagccagg catggtggca 540
tatacccaag tactctgaag gccgagggtg gaggattgct caaacctagg agtccaaggc 600
tgtagtgacc tgtgatagtg ccactgtact ccagcctggg aaacagagca agaccctgtc 660
tcttaaaaaa cnacaacaaa cctacacatg aaaattattg ctgcttccct cgag 714

<210> 749
<211> 466
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (25)

<220>
<221> unsure
<222> (230)

<400> 749
gaattcgcgg ccgcgtcgac gtgtnggaga aaaaactgct gagaagccaa agaaactgcc 60
accacagggg agacagagtt tgttgttcaa atcccaccaa gtagaggagg gcttggtaaa 120
caccttgggt tttccactga aacttcaaaa agatggttca tgctttagaa gtaaagattg 180
agtttaaatt aaggacagaa aaatattgat tggatttgcc tttttgaccn actcaggaac 240
aatttcgggt taggaatggg tatgggagag agagagaaga gcaggctaac gaaatagcaa 300
acaactcttg agagagtctg ttgtatggag aaatagggtt gtatttggat ggggaagttt 360
tgtttcttag gatggaagac actagagcaa gtctgttttt tggttttttt ttgagatgga 420
gttttgcttt gttgcccagg ctggtgtgca gtggtgcaat ctcgag 466

<210> 750
<211> 602
<212> DNA
<213> Homo sapiens

<400> 750
gaattcgcgg ccgcgtcgac agtaacactt aactcttcta taagtaatag aatctattta 60
gttttgaaga gtagtggata gattgcaagc tcattaccta gtttcacttt caaccagaac 120
tggaagaaat attaagtggg acaattacac taaaaatatg caaagtatac attttaagta 180
ttttatgttc cagaacagct gccacatgtg atactataat caatctaata gaaataaaag 240
tccacctctt cttagaacat aggttctcca ctggaggcag ttttgctccc caggggggatg 300
ttgacaatgt ctggacacat ttttggtttt cacagcgggg ggagagaggg actgtgtgcc 360
attggcctct agtggataga ggccggggat gttgctaaac atcctacaat gcagagaatc 420
acccactgac gacaatgaat ttttctgtcc aaaacgttaa cagtaccaag attttggaac 480
cctaccttaa gagtatacat aaggtaatgc ttttctaaaa ggtctgtgtt agagttgcat 540
atgtatccag caacatgtga gccctaggac agggctttgc ccataatacc ccctcactcg 600
ag 602

<210> 751
<211> 353
<212> DNA
<213> Homo sapiens

<400> 751
gaattcgcgg ccgcgtcgac gattaaagga tttacctgaa gagaaagcat tctattcatc 60
agagactgga caagagttac tcttgcattt ggcaattaaa gatgatgttt ccatggaaac 120
agttgatcct gctttcattc attggctgct taggaggtga gcttctctta caaggccctg 180
tatttatcaa agaacccagc aacagcattt tccctgttgg ttcagaagat aaaaaaataa 240
ctttgcattg tgaagcaaga ggcaatccat cacctcatta cagatggcag ctgaatggaa 300
gtgatattga tatgagtatg gaacatcgtt ataagttgaa tggaggactc gag 353

<210> 752
<211> 265
<212> DNA
<213> Homo sapiens

<400> 752

gaattcgcgg ccgcgtcgac ggggcaggga taaattcgta aaaataaaag aaatctttat 60
taaaaccaaa tgccatggaa attttttaga gaattctcat agttatacta aacctgagga 120
aaaataacat aatattgact gtttaaagag aactctgttt tcaagcctgt aaaactaatt 180
gatataattt tctacctaga atttagatat tatgaaattt ttttttgtta ttgttttttt 240
ctttaggatc acagtatcac tcgag 265

<210> 753
<211> 589
<212> DNA
<213> Homo sapiens

<400> 753
gaattcgcgg ccgcgtcgac cactttacct gtctgtaaga tggacatggt taggtctacc 60
catgagggct atgtggggat tggagaaaat ggaagtaaag aactagtcca gagccacccct 120
tggtgaaaag ccactgtcat catcatttac catcgtcatt ctccatccca gccatccacc 180
caccccaccgc cagcgtgctc ttcctctgtg accgatgtct cccgtgtagc catgaacctg 240
catgctcagg atgcagacga cggtttggga agagggtgcg tgactgccgt gtgggactgc 300
atgtcagctt cccatgaagg ggcaccttgg gtgagctcac tgtttcctaa cggcatctgg 360
cattttctcc tttcccattt gaccatgtca gttatcacca tcctacacga ctgctcactt 420
catttaaaaa aacccagttt gctttttttt aaacctttta tgtattctaa gtgatagaag 480
gtatggtctt ggtctacgat atgttttttaa tttttcttga aatacataaa tattaaaata 540
aaattgtgct atgtttccaa ctaagatcat cttgaatctc accctcgag 589

<210> 754
<211> 360
<212> DNA
<213> Homo sapiens

<400> 754
gaattcgcgg ccgcgtcgac taagtacagc aaaaaagaaa ggggggggaag aaaagaagaa 60
ggaagaggaa agggaggagg aggatttatc attcacttac actagaaaca gtgaaaatag 120
ataatagcta taatttactc acatcttatc taaaacacaa attcagggta atttatgagc 180
aagtcatttt ccggtgggct ttcgatagtg tgtgaatttg gaatgaatgc tggtacttcc 240
agctcccttc cacctgcagc accaggaagc cattgttgtg gggaggccac caacttggct 300
ggcatgttgc ttctgcctca gttagtgatg atggtgattt ggagagaaag gacactcgag 360
<210> 755
<211> 536
<212> DNA
<213> Homo sapiens

<400> 755
gaattcgcgg ccgcgtcgac gttgggatat gggtggtttg actaaagaat ggttccttct 60
tctaattcgc caaatttttc atccagatta tggcatgttt acatatcaca aggattcaca 120
ctgccattgg tttagcagct ttaaatgtga taactattct gaattccgat tggttggaat 180
tcttatggga ctagctgttt ataacagcat caccttggat attcgtttcc ctccctgctg 240
ttacaagaaa ttattgagcc ctcccatcat tcctagtgat caaaatatac cagtaggcat 300
ctgcaatgtt accgtggacg acttatgtca aattatgcct gagttggccc atggattaag 360
tgaactctta tcacatgaag gcaatgtcga agaagatttc gattcaacat ttcaggtttt 420
tcaagaagaa tttggaacaa tcaagtccta taatttaaag cccggtggtg ataaaatttc 480
agttaccaat caaaatagaa aagaatatgt acagctttat accgactttc ctcgag 536

<210> 756
<211> 388
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (192)

<400> 756
gaattcgcgg ccgcgtcgac cgaaggtgga ggtggaagac cagggatgca cagctcagaa 60
ggcaccaccc gtggtggggg gaagatgtcc ccctacacca actgctatgc ccagcgctac 120
taccccatgc cagaagagcc cttctgcaca gaactcaacg ctgaggagca ggccctgaag 180
gagaaggaag gngaagggaa gctggaccca gctgacccac gccgaaaagg tggccttgta 240
ccggctccag ttcaatgaga cctttgcgga gatgaaccgt cgctccaatg agtggaagac 300
agtgatgggt tgtgtcttct tcttcattgg attcgcagct ctggtgattt ggtggcagcg 360
ggtctacgta tttcctccaa agctcgag 388

<210> 757
<211> 259
<212> DNA
<213> Homo sapiens

<400> 757
gaattcgcgg ccgcgtcgac cttagcactt caatttaaaa acatagaggt ggaattttaa 60
atgttatttt gagttgactt tggcaggctg aaagaaagta aattaaaaaa aaaaacaaaa 120
acctagagct gttgctctcg gagataagct ctgggaaaac ttatcttagt acctcatgct 180
atttttaaaa cagtacattt atttttgcca gctgataccc ttctgtgagg agttgaattt 240
gaagaccact gggctcgag 259

<210> 758
<211> 258
<212> DNA
<213> Homo sapiens

<400> 758
gaattcgcgg ccgcgtcgac gtcaccacgc ccagcccaag aaagatacat ttttaaaaac 60
agctttattg tggtataatt gacgtaaaat gtacatactt aaagtataca gtgtgatgtt 120
ttgatatata tgtatactct tgaaaccacc accacagtta aaataatgaa aatgtccatt 180
acctccagaa gtttcttcat gttttgttgt aatctctcct tctcctccct gattcctccc 240
catccccagg cactcgag 258

<210> 759
<211> 177
<212> DNA
<213> Homo sapiens

<400> 759
gaattcgcgg ccgcgtcgac agtatttaca gtttgactga cattgcttgg ctgcccataa 60
taaagtgttt tgcttgggtg ctattgaatg ctttttaact tagtttttag acaattttgc 120
aggctttatt taagcatgtt gtattttgga ctgaggcaag tctttgcgga actcgag 177

<210> 760
<211> 166
<212> DNA
<213> Homo sapiens

<400> 760
gaattcgcgg ccgcgtcgac tgtaaatctt gtaattaatg gtcaaactgt ataaagggat 60
tggtagtcaa aacatgtaca aagaaatacc tgtaaaactg ttttgtctca tgttttattg 120
gaccaaagtt gtggtttgta tggagtgtag tagtagtgga ctcgag 166

<210> 761
<211> 208
<212> DNA
<213> Homo sapiens

<400> 761
gaattcgcgg ccgcgtcgac accaaatcac gggactgttc agcacaaaga aactgaactt 60

gccaatgttt acagttctga gaaggttctc catcctgttt acaatgtttg ctgaaggagt 120
tttactcaag aagacttttt cttggggtat taaaatgact gtatttgcaa tgattattgg 180
agcctttgta gctgccagct ccctcgag 208

<210> 762
<211> 289
<212> DNA
<213> Homo sapiens

<400> 762
gaattcgcgg ccgcgtcgac aaacatactt gtttttaact ctcaggaatt tcatgaggaa 60
caagtttaag ttttatatat atctatgtat gcttttcata aaccacaaat aagtttatac 120
actttagctg gaacttttta taatttcaga ggggttattg aactgactgt tggcattgga 180
tataagaatt tggcttcagg catttgctat tgaggtttta aaaatgttta aatatcttac 240
tgtaattttt ttgttttgtt atttgggaca atgcagctgt aatctcgag 289

<210> 763
<211> 207
<212> DNA
<213> Homo sapiens

<400> 763
gaattcgcgg ccgcgtcgac gaacagttag tagtagggct aagatttggt ttcagatttt 60
atttccaact agaaagacca ttttaacact gttttggtta ttgtttgtag agagctttct 120
aaataagtgg gtacctttat tatgattaag aaagtaattg actatttggt aggatttcat 180
acagaattat tgataagcac gctcgag 207

<210> 764
<211> 358
<212> DNA
<213> Homo sapiens

<400> 764
gaattcgcgg ccgcgtcgac gagaaggagg ggaacaagca gagactttta ctgggacaag 60
taaatcaagc cttcagcaac tcaaggaaca aacatacaag acaagctcaa ctcctcgtta 120
agaccaaatt aggataacac tacaagaaaa taaattgttt tatctggttg tggtgctttg 180
gggatagtta attgactact caaataacaa ctttgatagt atatgaactg tgactgtgtt 240
agtaggtttt aattagcagg aactttttgt aaattggaca aaaacttttt ttattatgac 300
taggaaaact gctgttttct atttttgttt tgctctttta aataataccg aactcgag 358
<210> 765
<211> 178
<212> DNA
<213> Homo sapiens

<400> 765
gaattcgcgg ccgcgtcgac ctactgtttt ctgtgttata ctttgtgtta gtgcagagtg 60
tttggtgtaa ctggctatcc ttttggaatc tttttgttat ttaataattt ttaattgttt 120
acacattttt agaaagtatt cgtttccgta taggatgatt gtatgggtct ttctcgag 178

<210> 766
<211> 103
<212> DNA
<213> Homo sapiens

<400> 766
gaattcgcgg ccgcgtcgac ttgaattcta gacctgcctc gagttgccta ctgatttcaa 60
gtattacatg aagcttgtaa aaataacaag cagttacctc gag 103

<210> 767
<211> 407

<212> DNA
<213> Homo sapiens

<400> 767
gaattcgcgg ccgcgtcgac ggcaagtctt aaaaactcga tttttatttt tatttgtatt 60
tacttatttt gtttatttat ttgagacaga gcaagactcc gtctcaaaaa aaaagcaaaa 120
caaaaaacaa aaccaaaaca aaagaggtgc aggccagaat tgtccccgtg gacatagttg 180
gtcaattaga ttgcatactt taatccagcc tcagttggtg tgtctgggtt ttctggctag 240
gaagaatgct gctgtggaat gtgctggaac agatccttac gtgcgctgtg ttggagtctt 300
tccaggtcag ggttctcaa acggatttca ggacccttta catcatccag aatgatccaa 360
tagccccagg agcctgtgtc tgtgtggatt atatctgccg gctcgag 407

<210> 768
<211> 268
<212> DNA
<213> Homo sapiens

<400> 768
gaattcgcgg ccgcgtcgac gttcattgag gtttaagaga ataaaagaaa ccaaaaaaga 60
acttcacaat tctcccaaaa caatgaacaa aacaaaccaa gtgtatgcag caaatgagga 120
tcataactct cagtttattg atgattattc atcctcagat gagagtttat ccgtcagcca 180
cttcagtttc tctaaacaga gccacagacc aagaactata agagacagaa ctagtttttc 240
ttcaaaattg cctagccata aactcgag 268

<210> 769
<211> 372
<212> DNA
<213> Homo sapiens

<400> 769
gaattcgcgg ccgcgtcgac aaattactta taaatttttt atagttgtat ttttgacctg 60
ccttttatat gtatgaatat ttcatagttt tgcatatcag atgtaggcat acagacaaat 120
acataaacca atgaatatat tacatattct gtgttccaat aaaactttat ttatggacac 180
taaaatttga atttcataaa attttcccat gtcaagaata caaaatactt gagttttgtt 240
tttagctatt taataatagg tctcatttat tccacaggct gtagtttgta gtcttgcttg 300
aaacaataga aacagactga ttaagcagga gaagtttttt gaaagaattt tgtttggctc 360
agcaatctcg ag 372

<210> 770
<211> 126
<212> DNA
<213> Homo sapiens

<400> 770
gaattcggcc aaagaggcct agggggtaat ttacatatgg ggtgtatata ttctaaaaat 60
agtaataaaa gtacctttta taagcaatgt tgtgtggctt gtagaagaaa gcagggagga 120
ctcgag 126

<210> 771
<211> 311
<212> DNA
<213> Homo sapiens

<400> 771
gaattcggcc aaagaggcct agtagaactc aagaagacag actaccaagg gtcatctgaa 60
gtcgtgattg ggtcactaat aacaccagga caaagttaag ggatcactac tcaagcataa 120
gccccagttt tcataagact gctgtgaaga tgtttgatat aaaggcttgg gctgagtatg 180
ttgtggaatg ggctgcaaag gacccctatg gcttccttac aaccgttatt ttggccctta 240
ctccactgtt cctagcaagt gctgtactgt cttggaaatt ggccaagatg attgaggccg 300
ggaaactcga g 311

<210> 772
<211> 185
<212> DNA
<213> Homo sapiens

<400> 772
gaattcggcc aaagaggcct aaagtcaaga acagtttttc actgcagctt ttagatatat 60
tttggtcata tactgtttac acaattgcca attcttgcca aatttgtgtt tgtgcatttt 120
attttcctcc tttaatgtac tgctctgcaa ttatgcttgt aaaatgtttt tcctgttcac 180
tcgag 185

<210> 773
<211> 262
<212> DNA
<213> Homo sapiens

<400> 773
gaattcggcc aaagaggcct atggtgaccc agccagataa tagtatcttg agcaaataat 60
agtatcttga gtgcaaataa gcaggaagac tgtccttcaa aaaatgtggg gttacatgat 120
tttcagagcc ttttttttcag agttgagcat ctttctttt aaaagaaata aggggcaaga 180
ggaccaattt tattccttga ggaaaaatga cacacccttc tcccaaaaga aagaaaactc 240
tctggccccc ccccttctcg ag 262

<210> 774
<211> 430
<212> DNA
<213> Homo sapiens

<400> 774
gaattcggcc aaagaggcct acacagactc ttgcaagctg gatgccctct gtggatgaaa 60
gatgtatcat ggaatgaacc cgagcaatgg agatggattt ctagagcagc agcagcagca 120
gcagcaacct cagtcccccc agagactctt ggccgtgatc ctgtggtttc agctggcgct 180
gtgcttcggc cctgcacagc tcacgggcgg gttcgatgac cttcaagtgt gtgctgaccc 240
cggcattccc gagaatggct tcaggacccc cagcggaggg gttttctttg aaggctctgt 300
agcccgattt cactgccaag acggattcaa gctgaagggc gctacaaaga gactgtgttt 360
gaagcatttt aatggaaccc taggctggat cccaagtgat aattccatct gtgtgcaaga 420
agatctcgag 430

<210> 775
<211> 223
<212> DNA
<213> Homo sapiens

<400> 775
gaattcggcc aaagaggcct atagagacat gaagaggctt gaagaaaagg acaaggaaag 60
aaaaaacgta aagggtattc gagatgacat tgaagaggaa gatgaccaag aagcttattt 120
tcgatacatg gcagaaaacc caactgctgg tgtggttcag gaggaagagg aagacaatct 180
agaatatgat agtgacggaa atccaattgc agttctccct ata 223

<210> 776
<211> 243
<212> DNA
<213> Homo sapiens

<400> 776
gaattcggcc aaagaggcct aaagattcga acaatgagtt taccagctct gagaaaaatg 60
aactgctcca gaaccttcaa gaatgtttct ctgtatcacg cccacatcac accgaatcca 120
tttgtcgtca ttgcagagtt catctttctg gttttgagca ccatctcaca cagttctttg 180
tctttttcca gtctgctgtt gactgggtta gctcagcccg aaaggtgccc ccactccctc 240
gag 243

<210> 777
<211> 249
<212> DNA
<213> Homo sapiens

<400> 777
gaattcggcc aaagaggcct agagcaagga ggtactctga gagctctggt ttgcagaaag 60
agagaaaaga caggatagat gaagagtagc caaaactccg tagaactggg gggagttact 120
gagcagacag gatggcatca cagagtgtgc catggtgggg taggagggcg gccaacaggg 180
acagaggagg gtcctctgcc agggagagaa acagagggaa tttgggggaa accagttgca 240
gatctcgag 249

<210> 778
<211> 287
<212> DNA
<213> Homo sapiens

<400> 778
gaattcggcc aaagaggcct acaaaaacca caaaagtgtc tacaagtctc ctggcatatc 60
tctattttca gacactgaat ctgcagtagc aacctgtttt ctccaccagc ctagggttca 120
taatcttatc tgcctgcatg gacccagaaa taaatcagag tacagcccca cctgggccac 180
tatctatagg acaaaccagt ccttccacct gcatttcact ctctccaacc cagggacttt 240
gttttctttt aacttttatt tttggttggt tcaggggtat actcgag 287

<210> 779
<211> 314
<212> DNA
<213> Homo sapiens

<400> 779
gaattcggcc aaagaggcct actttcataa atagaatttt catttttata aaattcaatt 60
tataattttt tatggtttct ctttattaat cccatttaag aaatctttgt gccatgatta 120
tgaagatgca ctctaatgtt tttttccaga agctctgtag gtttagcttt tacctttctg 180
ggtttgtttt gttttgtttt tttgagatgg agtcccactc gtgtcaccca ggctggagta 240
caatggtgca atctcggttc actgcaacct ccacctcccg ggttcaagca attcccctgt 300
ctccacctct cgag 314

<210> 780
<211> 502
<212> DNA
<213> Homo sapiens

<400> 780
gaattcgcgg ccgcgtcgac cggagcagcg cctattagtg tcatcctcac cgtcacggcc 60
ggcgcctcct cctggattca ttcactcgct cttttcattc acgaaggtag tgaggcctag 120
tggaaagcca tggagagcgc tctccccgcc gccggcttcc tgtactgggt cggcgcgggc 180
accgtggcct acctagccct gcgtatttcg tactcgctct tcacggccct ccgggtctgg 240
ggagtgggga atgaggcggg ggtcggcccg gggctcggag agtgggcagt tgtcacaggt 300
agtactgatg gaattggaaa atcatatgca gaagagttag caaagcatgg aatgaaggtt 360
gtccttatca gcagatcaaa ggataaactt gaccaggttt ccagtgaaat aaaagaaaaa 420
ttcaaagtgg agacaagaac cattgctgtt gactttgcat cagaagatat ttatgataaa 480
attaaaacag gcactactcg ag 502

<210> 781
<211> 217
<212> DNA
<213> Homo sapiens

<400> 781
gaattcggcc aaagaggcct agagagagag agagagctat taataaaaca gaggagtaca 60

ttttaccctt gcaattccag tcaatactgt ggtgtcattt cagccaacat accaacattc 120
agtcaaatcc caaagccaaa tggataattt cagatggaat ggagttagac aggaactggc 180
ttccctttct cctgttacta tgaggacaac cctcgag 217

<210> 782
<211> 219
<212> DNA
<213> Homo sapiens

<400> 782
gaattcggcc aaagaggcct aggaatcatt gcttactggg tagagaattt ctgttcggga 60
tgaaaatttt tagaaacaga tagtggcaat agttatataa cagtgtgaat gtaattaatg 120
ccactgaact gtacagttaa aaatggttaa catggcaaac ttatatctat tttgccacaa 180
ttaacaacaa caaaaaaagc atgggctatt agactcgag 219

<210> 783
<211> 257
<212> DNA
<213> Homo sapiens

<400> 783
gaattcggcc aaagaggcct aggggagcgt tgtgttccat gctgctgtcc aggcacccag 60
cggcatgagt agcctatgca acctttagag caaggcggtc gcggcttcgc atcccaacat 120
gggcactgta tgatgtcccg catcaggctt tcttatgtct gcctggagac cctaattatg 180
ggcggcataa tttgtccttg acggtctcat gcattttctg ggctgaatat ccggcaagca 240
ccagggttta gctcgag 257

<210> 784
<211> 218
<212> DNA
<213> Homo sapiens

<400> 784
gaattcggcc aaagaggcct attggaaaat agctgtgctg tcagcttttt gaggggggga 60
tttgttttgg tcagtcagtt ttatcataaa tttggcattt gggttaaaac agcaacatgg 120
aacaaataat ttttagatgt tggaaattcc tggttttttt tgttttgttt tgttttgttt 180
ttttgagaca gcgtctttgt cacctgggcg ttctcgag 218
<210> 785
<211> 197
<212> DNA
<213> Homo sapiens

<400> 785
gaattcggcc aaagaggcct acttgttcca gcgagttgac tataattttt tctaccctgt 60
tatctacctc tagctccatt gaacatcttc cttctgttaa gtgatagcca taagttctta 120
gtagcgaaat tattggatca aagagtagga caatttttat ggcactttta atgtgtgttt 180
tcaggcattg cctcgag 197

<210> 786
<211> 125
<212> DNA
<213> Homo sapiens

<400> 786
gaattcggcc aaagaggcct agtgccaaca aaatttaaat ttttctcatt aggattcaga 60
tttcagatta ggcaaacagt ttggttgatt ctgtgatgta tgtaaaggtt ggaagggctc 120
tcgag 125

<210> 787
<211> 204

<212> DNA
<213> Homo sapiens

<400> 787
gaattcggcc aaagaggcct agtgattata aaattccatt tgattctttg tttttctcaa 60
attgcataag cagtgagtag gaagaagatg atgaaccaca ggaggagtag tcagaagggg 120
agaagaacga gaaaagtaat gtcacagact gtgagggaaa attatccaca aagatgggat 180
gttacagtgc cagatgagct cgag 204

<210> 788
<211> 493
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (18)

<220>
<221> unsure
<222> (181)

<400> 788
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ctgtcttgcc cttccaaagt gcttgaatta caggcatggg ccacagtgcc cagctgggaa 120
tgatttttag acagcaatct tagtgctttg ttaatttttg ctttgcattt taaacatgtc 180
ntctctgttt ttttcattcc ctttaccatt tataattttc ttcattattt cactatgaac 240
taatgtaaac acaaaacatg ttcattcctt gaatgtaagc tacacactta aacctttttt 300
gatacacttc ccagtttatc tgatgccata tgaaaaaact tggatttatc tccagattcc 360
tccatatctt gtctttctgt ggatggctca taaagtgtgc gtgtatgtgt gttgtgtttg 420
ctagatacat tataattatt gttatttatt tatttaaaga aaggatcttg ttctgttgca 480
gtggcatctc gag 493

<210> 789
<211> 151
<212> DNA
<213> Homo sapiens

<400> 789
gaattcggcc aaagaggcct acgattgaat tctagacctg cctcgagcta tgcgtttgta 60
tttcttgctc cagcctctga atgttatctt caagttgctt gactctgaac tcatcctctt 120
cagactgccg cctcctgact tccccctcga g 151

<210> 790
<211> 360
<212> DNA
<213> Homo sapiens

<400> 790
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tctttagtta cggtagcgta gaataagggg acttaaaatt ggatcccttg aaattatatg 120
ttaattttaa aaataagttt attaggtgga aggttctgta tcttttatca aaattgcaaa 180
ggagtctgtg aaataaaaag tactcagctt agattctaca gtatttcaaa ctgtcttttt 240
ggattttttt tttgagacag tcttgctctg ttgcccaggc tagaggacaa gtagtgcggt 300
cttgactcac tgcaacctcc gcctcccatg ctcaagctat tattctcatg cctactcgag 360

<210> 791
<211> 281
<212> DNA
<213> Homo sapiens

<400> 791
gaattcggcc aaagaggcct agagggatgg agagagagat gaaggaactg cagacccagt 60
acgatgcact gaagaagcag atggaggtta tggaaatgga ggtgatggag gcccgtctca 120
tccgggcagc ggagatcaac ggggaagtgg atgatgatga tgcaggtggc gagtggcggc 180
tgaagtatga gcgggctgtg cgggaggtgg acttcaccaa gaaacggctc cagcaggagt 240
ttgaggacaa gctggaggtg gagcagcatg agcaactcga g 281

<210> 792
<211> 279
<212> DNA
<213> Homo sapiens

<400> 792
gaattcggcc aaagaggcct acaggtgact cgaatgaact ctgcattttc aacgtgcctt 60
ctactgcttc aggacctggg ggtccccctg accctcactg gcttgccccc agccctgggc 120
ctggccccac ctgtcctgga gcccagagcc cctggcctgg agctgcctct ctggggtggg 180
tctcaggccc cacccctccc tcttttgagt tcagtgcctt gctcagcccc tcccctgtat 240
ctcagcgtct tgagacctct gacagagcga caactcgag 279

<210> 793
<211> 326
<212> DNA
<213> Homo sapiens

<400> 793
gaattcgcgg ccgcgtcgac ctaaaccgtc gattgaattc aaggcctacc tgggaagaag 60
taaaagagca actagaaaag gaaaagaaag gctccaaggc tttggctgaa tttgaagaaa 120
aaatgaatga gaactggaag aaagaactgg aaaaacacag agagaaattg ttaagtggaa 180
gtgagagctc atccaaaaaa agacagagaa agaaaaaaga aaagaagaaa tctggtaggt 240
attcatcttc ttcttcatca agctctgatt cttccagcag ttcttctgat tctgaagatg 300
aggataagaa acaaggaaaa ctcgag 326

<210> 794
<211> 239
<212> DNA
<213> Homo sapiens

<400> 794
gaattcgcgg ccgcgtcgac gacaccatgg ccaagctcat tcttgtcaca ggtctggcaa 60
ttcttctgaa cgtacagctg ggatcttcct accagctgat gtgctactat accagttggg 120
ctaaggacag gccaatagaa gggagtttca aacctggtaa tattgacccc tgcctgtgta 180
ctcacctgat ctatgccttt gctggaatgc agaataatga gatcacttac acactcgag 239

<210> 795
<211> 100
<212> DNA
<213> Homo sapiens

<400> 795
gaattcgcgg ccgcgtcgac attgaattct agacctgcct cgagtgaagt acccaatgag 60
gaacctaaag ttgcaacagc ttatagaccc caagctcgag 100

<210> 796
<211> 714
<212> DNA
<213> Homo sapiens

<400> 796
gaattcgcgg ccgcgtcgac ctagctagct aaaaaaattc cttggggtct ggagtcacat 60
aaattatttt caatgcctgt tatttcactc ttgattttcc acaagatgac aagcctcttg 120

gagatacctc cttgtatcta ctttccaggt tattagatac attattttcc caggtacatt 180
atagtttccc agatacatgt atagctttcc cagatacgtt atttttccat tatatagcaa 240
aattttacat ctgtggatta gaaattaaat ttcacaaagc acctaagaaa gtcttaactg 300
ttctaaatct taagtgaata aagacctggc atgtgtttgt gttgtgtatg tctctctgtc 360
tctctgtgtg tgtgtgtgtg cgcgcgtgcg tgcgtgcgca ttggtatcag ttctgaaagt 420
gtatattggg gtctaagtta ggctcatgct ctcagaaatt tgatgcaaca tgcttggatt 480
attttgttca atatgagagt taaaaagtac attatagtgc tattttggaa aagaaagaaa 540
agcttttcag tagtaaccta acattttgca ttgtatatgt taccttttgc ttctttttct 600
tacacacgta tacaaaagta cataatgata atggtatcat tattgttgtt tttgttaacc 660
ctcatggatc actgtttccc aggttctctg ctaagtacca tacatgctct cgag 714

<210> 797
<211> 180
<212> DNA
<213> Homo sapiens

<400> 797
gaattcgcgg ccgcgtcgac gagggaggtg gtggtagttt gtgtttaata tttctagtta 60
agctggtgag agaagagagg aggaaaggtt tcctaaggaa gtagatagct gagttgagtc 120
attagagata aataagagct aatgagaaaa tatgtgggca gtatagtgtt gggactcgag 180

<210> 798
<211> 165
<212> DNA
<213> Homo sapiens

<400> 798
gaattcgcgg ccgcgtcgac agggcatctt gatatgctgc tcagtctctg ccttcttctc 60
ttccagatac actgtgcaga tgaagtcacc ggcatgctgg gtcccactgg cagtgccagc 120
cacgcgcatc ttcacaatgg cagtgatctc cccccgctgc tcgag 165

<210> 799
<211> 422
<212> DNA
<213> Homo sapiens

<400> 799
gaattcgcgg ccgcgtcgac gaattctttt taaattttat tctggttggg attggctggg 60
cttctgaaat cttgtggatt tttatctttc taagtttggg aaaatttttt cagccatttt 120
cttaaaatac agctttttccc catttctcct tcttccctga gactacattt aaatatatgt 180
tagactttct cactatattt acttctggtt tctttttgta tttaccaacc tttttcttt 240
gtttgttgaa acaaggcttg gctctgttgc ccaggctgga atgtagcggt atgatcgtgg 300
ttcactgcaa cctctgcctc ctgggctcaa tcgatcctcc cacctcagcc tcccaagtta 360
gctcgcatga catgccacca ttcctggcta gtttttgtat cttttctaga gacagactcg 420
ag 422

<210> 800
<211> 329
<212> DNA
<213> Homo sapiens

<400> 800
gaattcgcgg ccgcgtcgac cccccaggct caagcaatcc tcccatttca gcctcccgtg 60
tagctgggac cacaggcatg tgccaccaca ccttgctaag ttttgttttt tgtttgtttg 120
tttgttttgt agagaaaggt ttttgccatg ttgtccagat tggtctcaaa ttcctggact 180
caagcaattt gcccaccttg gcctctcaaa ccgctgggat tgcacgcatg aaccacctca 240
accagccata ttctgtttct attataaatg atgagattaa gcgttcagac tgctgtttgc 300
aaacagtttt cacaaatgtt acactcgag 329

<210> 801

<211> 436
<212> DNA
<213> Homo sapiens

<400> 801
gaattcgcgg ccgcgtcgac gtagaacagt gattactgga ggctgggagg aaagggaggt 60
ggatatggag aggttggtta acagatacaa aattacggct agataaaagg aataagttct 120
agtgtctgtg gcactgtagg gcgactagag ggtgtagtta acaatttact gtatattttc 180
aaatagctag aagacaggat ttctaacttc cccaacacaa agaaatgata aatgtttgag 240
gtgattaccc tgatttgatc attacacact gtatacctat atcagaatat cacactgtac 300
cccataaata tatacaatta cctatcagtt ttaaataaat aaattttcaa aaaccacaat 360
atttttttga atgagactct acctaaaatt ttattatgtt ctctctttat ggccttcttt 420
tgggaaaaca ctcgag 436

<210> 802
<211> 725
<212> DNA
<213> Homo sapiens

<400> 802
gaattcgcgg ccgcgtcgac atgcacttta ggtttgtttt tgcacttctg atagtatctt 60
tcaaccacga tgttctgggc aagaatttga aatacaggat ttatgaggaa cagagggttg 120
gatcagtaat tgcaagacta tcagaggatg tggctgatgt tttattgaag cttcctaatc 180
cttctactgt tcgatttcga gccatgcaga ggggaaattc tcctctactt gtagtaaacg 240
aggataatgg ggaaatcagc ataggggcta caattgaccg tgaacaactg tgccagaaaa 300
acttgaactg ttccatagag tttgatgtga tcactctacc cacagagcat ctgcagcttt 360
tccatattga agttgaagtg ctggatatta atgacaattc tccccagttt tcaagatctc 420
tcatacctat tgagatatct gagagtgcag cagttgggac tcgcattccc ctggacagtg 480
catttgatcc agatgttggg gaaaattccc tccacacata ctcgctctct gccaatgatt 540
tttttaatat cgaggttcgg accaggactg atggagccaa gtatgcagaa ctcatagtgg 600
tcagagagtt agatcgggag ctgaagtcaa ggtacgagct tcagctcact gcctcagaca 660
tgggagtacc tcagaggtct ggctcatcca tactaaaaat aagcatttca gactccaacc 720
tcgag 725

<210> 803
<211> 297
<212> DNA
<213> Homo sapiens

<400> 803
gaattcgcgg ccgcgtcgac ttctaaaatt ttatataaat agaatcatat agtaagtact 60
tctgttgcct ggctcctatt actcagagta attgttgata tttatccatg gtgaagcatg 120
tgtcagagtt tattcctttt tattgctaag cagtgttcca ttgtgtatct gttttactac 180
agtttgtcca ttcacctgtt ggtggacccct gggttgtttc tggttttggg ctctacacct 240
agaagctcct atgaacattt gtgtacaagt tttggtattg ttaaagttaa actcgag 297
<210> 804
<211> 701
<212> DNA
<213> Homo sapiens

<400> 804
gaattcgcgg ccgcgtcgac aaaagggtaa gtataagaaa atattgcaaa cacattaaaa 60
cagttgtatg gtgcaggaaa agaagattgg aaaaagacca aaacacactt ctccagcaac 120
actccatcag ctttttaaaa tttagagcta tctgctaatt ttttccctct tccttctcaa 180
taaatgaaac aaacactggg cagctgcagg tttctcccaa tcatgtctct ttatgtaaag 240
acagtaacat gcaaacactt ttagtttaca tccctcattc acagtgtaaa gcaggaaatg 300
gtgtgggaga tgtgagacca ttctgaggtc agcgatagcc caaaggctct gcagtattcc 360
ctccaatggc caaggattcc gtgtgtcatc tgcaggagtg agtaggcctg ctgtatttct 420
tgtaactgct gggtgttaca aaataagtta caatgtttta cactttaaaa aaaaaacaga 480
aggaacattt gctttattgg ttacttacta gtttagcctc taggttatgg cacagcatgc 540

taaaaaatca tgtgtttaaa agtaaatgtt ggtaaaatgc tggcatctgg tcctattgtg 600
ttgatgcatt ttcacttctg tggtcatagg aaatggactg gtctaaagag agtgaggcac 660
aacacaagca gggcattagt ttgaatagga agtctctcga g 701

<210> 805
<211> 269
<212> DNA
<213> Homo sapiens

<400> 805
gaattcgcgg ccgcgtcgac ccaaccgtcg attgaattct agacctgcac tccagcctgg 60
gcgacagaac aagactccgt ctcgaaaaaa ataaaataaa ataaaataaa atatatatag 120
tgtagtatca aaggaaaaca gcaaaacttt aaatatttgc tttgaaaatt aactgttttg 180
taggttaaga gcacagtgtc gcagctttgg acttaacata attaattcag atgttagcca 240
tacatacctt ttccatctgc cttctcgag 269

<210> 806
<211> 259
<212> DNA
<213> Homo sapiens

<400> 806
gaattcgcgg ccgcgtcgac cgtcgattga attctagacc tgcctcgagt gttgtgtggc 60
catggggtat aggaggttgg ctgttatcgg cctctgctcc tgtgggtttt actccttctt 120
ggcctacctg ctgctctttc agtctccatt ccccaccttt tctcctcctc gcagccactg 180
tttgatgctg gactgcagga aaatagtcac cgatgcagga gtgtccaggc agtgttccca 240
ccaacagtac actctcgag 259

<210> 807
<211> 216
<212> DNA
<213> Homo sapiens

<400> 807
gaattcgcgg ccgcgtcgac ggacagggga ctgggcagaa aataatattg tagaaggtag 60
aacagcattt ctttgggagg atttatcttt ttaagtatat agtggtcttc taccactatc 120
ctacaacagg ttgcaggaca aataatgtat tttaatcttt gggggagtct ttgtgtaagt 180
cagaccttat tcattttcat tccaacaacc ctcgag 216

<210> 808
<211> 705
<212> DNA
<213> Homo sapiens

<400> 808
gaattcgcgg ccgcgtcgac acctgcctct aaataaataa ataaataaat aaataaaaat 60
aaaggcaaat ctgatcaagt catgctctgg gataaaagct ctaaaggctt cacccttttgc 120
tttaggagaa tgcttgcccc agcctggaag atccgggcct ttcccctccc ccaagcccctt 180
ctctcccagt ccaccccttc cacctgattc ctcccacaga tcaactgaga tataaataca 240
actctccacc taaaaatatt acgggtagaa gtaacactga ggatggctag aaatggatat 300
aagaaaactc attattgact aaaatgcaca aaagaatcaa atcttgacca cgaatctttt 360
tttttggttt taatttaaat cttccaaaat ggaatggggt tacccagtca atcacacaat 420
ggcagaaact cgtgtcaaga gcctgcagcc cccacactga tggatgcctc caatctcagc 480
agcagaatgt gtacggaatc gatgccgatg aaaacagttt cagtaaaatt acaaaagaat 540
gaaaaacatg gacatttgtt taactgtact acaggggaaa aacaaaaatc tgatcaaaga 600
attaagttgg atgaatagag ttcaagctgg agaacacctt cttaaaacat tttcagggtt 660
agtatgtttt ggtttaaaat gtttgcattc aaggttctcc ctata 705

<210> 809
<211> 230

<212> DNA
<213> Homo sapiens

<400> 809
gaattcgcgg ccgcgtcgac gtgagctaaa gcagtcaatt ttttcatgga gcaccacgaa 60
agaacaaaag acatataaat tatggttatg caaagtaaaa tatacaacat tttctttttct 120
ctcctttttt tttttttttt tttgagacag gtcttgctct gtcacccagg ctgcagtgca 180
gtggtggtgc catcactgct caacacagct tctatctccc aggactcgag 230

<210> 810
<211> 544
<212> DNA
<213> Homo sapiens

<400> 810
gaattcgcgg ccgcgtcgac cgtcgattga attctagacc agcccggcca acacagcgaa 60
accccgtctc caccaaaaaa atacaaaaac cagtcaggcg tggcggcgcg cgcctgcaat 120
tgcaggcact ccgcaggctg aggccggaga atcaggcagg gaggttgcag tgagccgaga 180
tggcagcagt atagtccagc ttcggctcgg catgagaggg agactgtgga aagagaggga 240
gagggagacc atggggagag ggagagggag agggagaggg agaggaccgt ctgctttaaa 300
aatgggaaat atcagtattt gaggcaatga agtcaaaatt gacctaatga gatgttgata 360
cgattctttt cctgaagctt taatacattt acatttttat ttttggaaac tcactttcat 420
tctgtacatt tatactgtac ctattttgtg ttgtcagatg tacgtgtgtg agttactgat 480
tttcttcctc acacatggag acacttggca gccaatcagc ccaccaggaa ataggtccct 540
cgag 544

<210> 811
<211> 714
<212> DNA
<213> Homo sapiens

<400> 811
gaattcgcgg ccgcgtcgac ccccaacctg cccgcatgcc ctatatctca gacaagcacc 60
ctcgacaaac cttggaagtg attaaccttc tgagaaagca ccgggagcta tgtgatgtgg 120
tgctagttgt gggcgccaag aagatatatg cccatcgagt cattttgtca gcctgtagtc 180
cctacttccg agctatgttt acaggagaat tggcagagag ccgtcagaca gaagtagtga 240
tccgagacat tgacgagagg gctatggaat tactgattga ctttgcgtat acctcccaga 300
taacagtaga agagggcaat gttcagaact cttctgccag ctgcttgcct cctccagctg 360
gcagaaatac aggaagcctg ctgtgaattc ttaaagagac aattagatcc ttctaactgc 420
ctgggcattc gggcttttgc tgacacacat tcatgtcgtg agttgctaag gatagcagac 480
aagttcaccc aacataactt tcaagaggta atggagagtg aagagttcat gttgcttcca 540
gccaatcaac tcattgatat aatatccagt gatgagctaa acgttcgcag tgaagaacaa 600
gtgttcaatg cagtgatggc ctgggtcaaa tacagtattc aggaaagacg tcctcaatta 660
ccccaggtgc tgcagcatgt tcgtttgcct ttgcttagtc ccaagcccct cgag 714

<210> 812
<211> 309
<212> DNA
<213> Homo sapiens

<400> 812
gaattcgcgg ccgcgtcgac acagaaaagg gcttggttgg acaaatttac aagggttgtt 60
aaacatacaa agtgccaaaa gcctatagtt attcattcta ttacttgttg gcaggtaaat 120
attttgtgga aagtatttgt ttatttttat ttttactttt tgaggtggag tctcgccctg 180
ttgcccaggc agcagtgcag tggcgcagtc tcggctcact acaacctctg cctcccgggc 240
ccgagtgatt ctcctgcttc agcctcccaa gtagctggga ctaaaggcat gcaccaccat 300
cacctcgag 309

<210> 813
<211> 178

<212> DNA
<213> Homo sapiens

<400> 813
gaattcgcgg ccgcgtcgac gtcgattgaa ttctagacct gcctcgatga atcccgcaac 60
ctttccaaac acgtctcatt tattagttct aatatctttt agtagattcc ttagtggttt 120
tttttgtttt ttgttttttt ttaataatat aaaggatcat gtcatctgca aactcgag 178

<210> 814
<211> 342
<212> DNA
<213> Homo sapiens

<400> 814
gaattcgcgg ccgcgtcgac aaccttcttt tgtttgtcag cagccaaggt gtttccagga 60
agttcagaga gaacagaatt taagaagtgc aacatggcca ggggctgcct ctgctgcttg 120
aagtacatga tgttcctctt caatttgata ttctggctct gtggctgtgg gctgctggga 180
gtgggcatct ggctctccgt gtcccaaggc aactttgcca ccttctcccc cagcttccct 240
tcgttgtctg cagccaacct ggtcatcgcc ataggcacca ttgtcatggt gacgggcttc 300
ctcggctgcc tgggggccat caaggaaaac aagttcctcg ag 342

<210> 815
<211> 668
<212> DNA
<213> Homo sapiens

<400> 815
gaattcgcgg ccgcgtcgac gtgtgccttt gctgttgaag agtccggaaa cttaatcaaa 60
aatagatgtg agggttctgc tgcactgtac tgggtgtcta aactatacta gacgtggggc 120
ttagaagagc tccccttcc acatagaaaa gctctatggg gttggatcac tctctacaga 180
ttcttctttt gaatcccatt ggctctccca gttgttcctg acacccatag ccacagagaa 240
ggagtcacaa agtgaagccc tcagcttgtc cttctctaag ctctctgcag cctcagtggc 300
ctcatctgaa cagtgcagat gatagttacc acttcatagg gctgcctaga aaacaaaatc 360
cagtagtgtt caaatcacct catagcacat cgtagatgct caagaaagtt ggctggtgtt 420
actcacattc tgctgcagcc cctaggctga ccccatctct gacagtcctc caacttgttc 480
tctccctgct ccttgctccc tttcctctag ggtttgctga gagcagaggg agagaaaggg 540
tgggtggtca gtcacccttg ctggctatga caggttgcag tcatggtggg aaaggagaca 600
gcatcactct taagcactct cctgagattc atgatggaca ctcctccagc aacgcagggg 660
ccctcgag 668

<210> 816
<211> 344
<212> DNA
<213> Homo sapiens

<400> 816
gaattcgcgg ccgcgtcgac ggcagatggt gtgaagaggc attgtgagct aagtgtatag 60
gtgaggtgag ttaataaaag atgtaaattc tggcctaaaa tggtgaggcc tcatggtatg 120
caggaaaatt taattaagtg gccaccactc tttcccccat caattggatt ttcttctgcc 180
acagtaagaa gtcatccagg atatgctggg ggggcactta gatgagtctt ggtccgttga 240
gtgttttcat tttctgatat tctaattgcc agcgaggaac cttgaacgta agaaaatcat 300
gtgaaacttc atcaaaaatt aataatcacc aagcaggact cgag 344

<210> 817
<211> 163
<212> DNA
<213> Homo sapiens

<220>
<221> unsure

<222> (135)

<400> 817
gaattcgcgg ccgcgtcgac ggggggcctt ttattaatat tgtcacacca caccacacca 60
cacacacaca ccacaccaca ccacaccgtt tgaaagctgc atcaagctgt gcacaaacat 120
gatcgcagtg ctgtntttgt taagcctccg ccttcccctc gag 163

<210> 818
<211> 319
<212> DNA
<213> Homo sapiens

<400> 818
gaattcggcc aaagaggcct aaacaaggga tttgaacgtt tttcagcaca aaaggataac 60
ttccgagtgg tggtctgtac gcatactagc aaaggtaatg gtgatctagc aaacaaaatt 120
ggtttctgca gttagaagtg agcaggagca cttgtattat agtatttaaa taatcctggt 180
taatctcttt ttaagccgag taacccctcc agattttgcc tttttattat tgaggctggc 240
tttattttct tctacttttt ttcccgtttt atagcagtta attatttttg tgattattat 300
gcaagaagca ttactcgag 319

<210> 819
<211> 393
<212> DNA
<213> Homo sapiens

<400> 819
gaattcggcc aaagaggcct acagagaact gaatagatga gggtgttgga aagaaacgtt 60
tttgggcatg gtgtaaaggc atgcttgagg gattctaagg aggctggtgt gtggctggaa 120
ctaagtgtgg ggatgagagg tactaggaga tcacatgaga ccatgtaggc cactgttagc 180
agtgagtaca atggtaaatg agtagaagga ttttgaacag caagattgct atgatcttac 240
ttaacactta taaaagagtc actcctatga cttttgtagg gtgagtaagc tatagtaata 300
tcaatagaaa tgaacatgct ttgcatttgc catgtgtcag gtattattat tattatttat 360
tttacttttt tttgagatag ggatccactc gag 393

<210> 820
<211> 270
<212> DNA
<213> Homo sapiens

<400> 820
gaattcgcgg ccgcgtcgac gaaggataag aacaggtcgg agatgtccgc ccagaggtta 60
atttctaaca gaacctccca gcaatcggca tctaattctg attacacctg ggaatatgaa 120
tattatgaga ttggaccagt ttcctttgaa ggactgaagg ctcataaata ttccattgtg 180
attggatttt gggttggtct tgcagtcttc gtgattttta tgtttttgt gctgaccttg 240
ctgaccaaga caggaacccc acacctcgag 270

<210> 821
<211> 163
<212> DNA
<213> Homo sapiens

<400> 821
gaattcgcgg ccgcgtcgac ctacatagtt ctttctgaat acaaatctca gataaaacac 60
tatctcagtg atcaaccagg ttaagcaacc tttttagtgc ctcaattatt ccatttgtaa 120
aattgtaata atgatagtac taacctataa gattattctc gag 163

<210> 822
<211> 200
<212> DNA
<213> Homo sapiens

<400> 822
gaattcgcgg ccgcgtcgac attagaagct ctagtgagtg aagtttggtt atactttgaa 60
aatatactaa gatggaacca ttaaaaacag taataatttt tattatcttt catttgttca 120
agaatgataa aaagcatcaa ctagaaggga aacttcaaga tatcagatgt cgattgacca 180
cccaaaggca agatctcgag 200

<210> 823
<211> 284
<212> DNA
<213> Homo sapiens

<400> 823
gaattcgcgg ccgcgtcgac ccaatacaca ccacactgtc tacttcagtg gggaaatacc 60
aaccctcctt caccaatcca gaaagaaatc tgtaatatta gattcctcga cagtgtagaa 120
acctagttct gtgtagtatg gttgttttgg acatttgtaa atttattttt aaagttttat 180
ttgtatatat ctttttgaga caggattttg ccctgtcagc caggttggag tgcagtggtc 240
tgatcatggc ccactgcagc ctcaatcccc caggctatct cgag 284

<210> 824
<211> 275
<212> DNA
<213> Homo sapiens

<400> 824
gaattcgcgg ccgcgtcgac tattgtggta ctgtttataa tttattggtg ctcttaggac 60
cttagtggga gttggctact ttttggttac acactaagta gctccagact gttttaaaaa 120
tgcttgtttc tgctgtatat aggtttttat ttatttgttt gtttttgttg ctgcttttgt 180
ttcttccctt ggtgttgggt gacattttta actatcatag atacootttt ctaaagcagt 240
ttctatctcc tgggtccacc cccctccacc tcgag 275

<210> 825
<211> 256
<212> DNA
<213> Homo sapiens

<400> 825
gaattcgcgg ccgcgtcgac catctgggta tttggaaaca agtggtcatt gttacattca 60
tctgctgaac ttaacaaaac tgttcatcct gaaacaggca caggtgatgc attctcctgc 120
tgttgcttct cagtgctctc tttccaatat agatgtggtc atgtttgact tgtacagaat 180
gttaatcata cagagaatcc ttgatggaat tatatatgtg tgttttactt ttgaatgtta 240
caaaaggaat ctcgag 256

<210> 826
<211> 276
<212> DNA
<213> Homo sapiens

<400> 826
gaattcgcgg ccgcgtcgac agagcttaaa ggctggatta tgcaaatact aacttttttt 60
atttagtga aaacgattca aatttcaaca catttaataa taaatgagaa aatttcagta 120
gataagcata gaacaaatgt aaaagaaact ctcttcaacc aagattgtac tattgtatgt 180
ggtctaaagt atagtaatag ttttactcag aatggtgaat taaagatact gggagcttct 240
gaaatgcatc ctattccaaa aatggggtta ctcgag 276

<210> 827
<211> 169
<212> DNA
<213> Homo sapiens

<400> 827

gtccttgtgc tgaggagaag gatgtttatt ctgatatcca ttagatgaaa tgttctgtaa 60
atatctatta ggtccatttg ttgtacagta cagattaagt ttgatgtttc tttttgattt 120
tctgttattg gaagatctat ccaatgctga aagtggggcg agtctcgag 169

<210> 828
<211> 172
<212> DNA
<213> Homo sapiens

<400> 828
gaattcgcgg ccgcgtcgac catcaagtct acaagaaaat taaaggagtc tttgattaac 60
agtggttttt caaacaaacc tgttgtacaa ctcagtaagg aaaaagttca gaaaaaaagc 120
tacagaaaac tgaagactac ctttgttaat gttacttctg aatgcgctcg ag 172

<210> 829
<211> 385
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (251)

<220>
<221> unsure
<222> (264)

<220>
<221> unsure
<222> (274)

<400> 829
gaattcgcgg ccgcgtcgac gctgctctga tgacttttaa aaactgattt gtagggattc 60
tttgtgtaaa cactaatgct tgatctgata tatcaaattg tgtgaatgct taacagacca 120
agcattagta ttcacacatt catgtgcatg tgtacatgtg tgtgtgtgtg tagtatctta 180
tgcatcttac cctagaggat gccactcacg taactttatt tttattatgt atataataat 240
cagggtacac natatctgtt tttntgaaaa gctnactaat acagcagaat ctatctactt 300
tcatttcctt agtttgaagg tgagtataca aaattcacaa tctctacttt gaataatctt 360
gaaataaaac atgagattac tcgag 385

<210> 830
<211> 246
<212> DNA
<213> Homo sapiens

<400> 830
gaattcgcgg ccgcgtcgac tatcttaaac tcctgaaata gatattctaa acaatttaaa 60
attaaccctg ataacaaaca gttccccaat cagcactggt cattggacca tacttggagt 120
tacattgctg tagtgtgaga ctttcatact ttttttaaaa ttgtcacctg tattaagaaa 180
tacattttac attttcatcc agtgttatat catatacaca tgtacataac tgaaacaata 240
ctcgag 246

<210> 831
<211> 323
<212> DNA
<213> Homo sapiens

<400> 831
gaattcgcgg ccgcgtcgac ctcctttgct catttttaaa ttggattatt tgtctttaaa 60
ttttagatac taatccctta tcagatattt gatttgcaaa catttttcct tctttgtagg 120

ttgccttttt attttgttgt ttgtttcctt tgccacgctg aagcttttta gtttgagcta 180
gtctcattta tttttacctt tgtagctaag ctttttgtgt attacccaaa aaatcattgc 240
caacaccaat gttgaggaac tttcctccta tgttctcttc tagtttatgg ttttgggtct 300
tatatttagg tcattcactc gag 323

<210> 832
<211> 343
<212> DNA
<213> Homo sapiens

<400> 832
gaattcgcgg ccgcgtcgac gggagtcata tacagacttt tgtggatttc atgttaaaaa 60
aaaaaaatca attgttataa gagaacacac tgttttgtaa aaaaaaaaaa tctttttttgt 120
tgtgcatatg tatttacaca catatatcca tgtgtactcg gtctcaatat caaaatattt 180
cttacagtta cttatggtca aactgtttga aatacttgta tttaattttt ctggtgtggc 240
ttttcagaca ctctggaaag cagaactaag aaatgatttc tggggtatat ctaggaaatg 300
tcacctcagt tatagcccag aaacaactgt ggcccgactc gag 343

<210> 833
<211> 383
<212> DNA
<213> Homo sapiens

<400> 833
gaattcgcgg ccgcgtcgac cttttaaaac gttgtccgca tttgtactca gtgggacaca 60
tcctagggcc tgctgtatcc tgcaaagtat agaatactgg aatcagaagg aagctttctt 120
ttccccctac tgtttagtct ttttgggagg aaaaagaccc gaaatttgtg gtcatttaga 180
tgttcattaa cctggtcgca ttcatcacta gtccatttca gctccgagga tgtttaattt 240
cagtcctctt ccaggtttgc atgcttcagt cctcttctgg gtttgcatgc ttcagaggtt 300
ctcggcactc agtctcccta gaactgtctt ctcccaaatc ttccctaact cttcttccgg 360
gctcatcccc cccttccctc gag 383

<210> 834
<211> 191
<212> DNA
<213> Homo sapiens

<400> 834
gaattcgcgg ccgcgtcgac ctcagaagga gaatgttgtt gcttgagcct cttttgagct 60
ttaaaaagga caaggaaagg cactgtacgg agtgttttac ttttgacttt tttttcatga 120
ctacaaactg ttggatattg aaaaccttgc atttacttgt gaattgccag tctgtgtttg 180
cgtcactcga g 191

<210> 835
<211> 194
<212> DNA
<213> Homo sapiens

<400> 835
gaattcgcgg ccgcgtcgac tgtcatttca tttcggtttc ttttctcgcc atgtttttct 60
gtcggaatta cggttcgttt tggttctatg tactctctaa aatgttatcg tttttcattt 120
gtctactaat tttcgtgcat ttgttactac tgagtttctt aatatctgac tggcctccgc 180
ccacgggtct cgag 194

<210> 836
<211> 206
<212> DNA
<213> Homo sapiens

<400> 836

gaattcgcgg ccgcgtcgac gtttgagtct tctgatgtaa aacatttaaa cagggaaatt 60
tctgctgtcc tcagaacaag atctgtattt ctgcctcttc cctacccacc cctcttccac 120
acctcataat gttatttatt ttttttctct ttagtgggca gttttatctg gcaatagcaa 180
ctcaatttta tggcaacgcg ctcgag 206

<210> 837
<211> 156
<212> DNA
<213> Homo sapiens

<400> 837
gaattcgcgg ccgcgtcgac tgtgcgtgta tgtatgtgtg tgtgtgtaga cgttgtcctg 60
aggttcatca gctaaaataa tataataagc aatccctaca aaatatttca aaccaggcaa 120
atgacttctg gaagagagag aaaggaagag ctcgag 156

<210> 838
<211> 282
<212> DNA
<213> Homo sapiens

<400> 838
gaattcgcgg ccgcgtcgac gcatttgatt ggtcagagtg gttttagaat gctttttgaa 60
ggaaaataaa aatggacaag atattgaaga ataggggaa tttggccatg agtagaagac 120
aggagacttt tactgaaact cactccttca acctgttttt cttttattgt cgtacttggt 180
accatgtctt tatggcttgc tgtccttatt tcactgtatg ctcactctaa tcttttagga 240
aattgcaaaa ttattaaaaa ttgccatagt acaaacctcg ag 282

<210> 839
<211> 199
<212> DNA
<213> Homo sapiens

<400> 839
gaattcgcgg ccgcgtcgac gcaaaacatc catcttatcc gagcccctct tgcaggcaaa 60
gggaaacagt tggaagagaa aatggtacag cagttacaag aggatgtgga catggaagat 120
gctccttaaa aatctctgta accatttctt ttatgtacat ttgaaaatgc cctttggata 180
cttggaactg cgactcgag 199

<210> 840
<211> 146
<212> DNA
<213> Homo sapiens

<400> 840
gaattcgcgg ccgcgtcgac ctaaaccgtc gattgaattc catgcccctg tctctctgtc 60
tttatgtgtt gccatttctc tgcccctgcc tttggctctc tttctcagag tgtctcttga 120
tctctaactc ttctctttgt ctcgag 146

<210> 841
<211> 225
<212> DNA
<213> Homo sapiens

<400> 841
gaattcgcgg ccgcgtcgac caccctaatt atccggctgc ggcacaacgt gattaagaca 60
ggtgtacgca tgatcagcct ctcctattcc cgaatctcct tggctgacat cgcccagaag 120
ctgcagttgg atagccccga agatgcagag ttcattgttg ccaaggccat ccgggatggt 180
gtcattgagg ccagcatcaa ccacgagaag ggctatgtcc tcgag 225

<210> 842

<211> 280
<212> DNA
<213> Homo sapiens

<400> 842
gaattcgcgg ccgcgtcgac cctaaacctc gactacatat tctgaaccag ccagggaagg 60
gtgagttagt tgtttctgtt ggtcaactga atctcaggta tctttggtct tcctttctct 120
tacaatggaa gtaatgttca ggacctatct gagaccagtc ccttgtctac tgctcttcat 180
cctttttct cttgttttct caatggcttt actccttcct ctcttcaaca gcatcagctc 240
tgccccctct tactctttgg caaagacacc caatctcgag 280

<210> 843
<211> 361
<212> DNA
<213> Homo sapiens

<400> 843
gaattcgcgg ccgcgtcgac agcttttcct tctacttgca gggtcaccaa agtgaaaatt 60
gagtgttcat ttttttctta tttgcgatac ctgtagcctg agaatgttac ttctagcagt 120
tgtcttcatt ttgtttattt ttattaatgt agaaaattat caaacccata gaaaaattga 180
gagtagagtg aatacccata tgcccctgtc cttggttctc cagctattaa caccttgtca 240
tatttcttat ccctccttcc ctctcttact ctttcctttc tctctctctt tcttcttctg 300
tctcttctct tttgtcagac catgtgacac ttcaccaaca tataacactt cactcctcga 360
g 361

<210> 844
<211> 121
<212> DNA
<213> Homo sapiens

<400> 844
gaattcgcgg ccgcgtcgac gggagacaaa gaaatatcga aagcaagtaa agaaaaaaaa 60
agacaccagt gatcaacaga ataaagccag aatgagattg aagttagaaa cttggctcga 120
g 121

<210> 845
<211> 366
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (69)

<220>
<221> unsure
<222> (75)..(76)

<220>
<221> unsure
<222> (97)

<400> 845
gaattcgcgg ccgcgtcgac ctgggaacat ggtcaaggtg gaaggggctc ccctagagag 60
ggtgggggng tagtnncttc ccagttggcc agaaaanagg gccttgcaga ccccccttagc 120
attttttccc ttttttttcct tccctgcttt ctacttcttt ggggagcccc ttgtgttttg 180
gagtctgact ggagtctcgc atcctggggc ctgctccatc catccctcct gggcgccaga 240
ccctccatcc aagccctgtg tctttccata gtcagggtca ggccctgcat ctattccaag 300
gggcactcag tacacattcc ataaattagc tgggtgtccc tgcacgccca ccccatgaaa 360
ctcgag 366

<210> 846
<211> 183
<212> DNA
<213> Homo sapiens

<400> 846
gaattcgcgg ccgcgtcgac tggttctttt atagctaata aatatccttt tatctggctt 60
taagattttc tctaatcact ggttttaagc aatttggtta tgaggtgctt tgatgtagtt 120
ttatgtttct ttttattatt attattaaat ggtgtctcac tctgttgccc aggcttactc 180
gag 183

<210> 847
<211> 191
<212> DNA
<213> Homo sapiens

<400> 847
gaattcgcgg ccgcgtcgac atcctggttc ttgcctgtaa tatcaatcaa ttgtttcacc 60
ttctcctcaa agtcagcatc attatggtcc gaaatcatct gtgcaagtct aatttgttct 120
gcagtggcct gtggccgctg cttgtgctgt gtctggtttt ggttttgagg ttgttcccag 180
ttcccctcga g 191

<210> 848
<211> 207
<212> DNA
<213> Homo sapiens

<400> 848
gaattcgcgg ccgcgtcgac gtcacctcaa gcatttatcc tttgtgttac aaacaatcca 60
gttatacttt tttagttttc ttaaatgtac gattaaatga ttattgacta tagtaaccct 120
gttgtgctat caaaaatatt agggcttatt catttattca ttcaattttt ttggtaccca 180
ttaatcatcc ctacccccctc cctcgag 207

<210> 849
<211> 235
<212> DNA
<213> Homo sapiens

<400> 849
gaattcgcgg ccgcgtcgac ggaattatct agtccccaga ttgatcatct cccctggcaa 60
cgtgactctg ttttttgtgt gtgtttccat gctgactagt cccctactgt taatatcact 120
actaattagg ctataaccag gtctttcctg gcctgagaaa tattctctta aaatgacctt 180
tgttttaatc tcattcatga tgttgatttt ttttcaatgt ggtgctgggc tcgag 235

<210> 850
<211> 205
<212> DNA
<213> Homo sapiens

<400> 850
gaattcgcgg ccgcgtcgac cctaaaccgt cgcttgaatc ttaaaaactt ttatattcct 60
tgttcataat tgatctgaca gataacagtt tgttaaaata ataatagtga ccatgtattc 120
gattatgctt ctgtgggttt gtatatgtgt gtgtatctat acatggtact taggtataag 180
tgaaatgaat gacagcgatc tcgag 205

<210> 851
<211> 221
<212> DNA
<213> Homo sapiens

<400> 851
gaattcgcgg ccgcgtcgac cgcagacccc acactcttct gcaattcatt tcatagttgt 60
caagactata caaattgtcc tttttaatgt tctctcttct gctatcccta gttggcagtc 120
ttcctcttta caacctgctg aaagtggaag acctccagtt ttcctttaat tcctcagcaa 180
accaccaact attatatgtc ttttttccag aacaactcga g 221

<210> 852
<211> 254
<212> DNA
<213> Homo sapiens

<400> 852
gaattcgcgg ccgcgtcgac ctaacaatga agagtcaaga aaaagctaat ttaggagaaa 60
atatggagaa gtcttgtgca agcaaggaag aagtcaaaga agtcagtatt gaagatacag 120
gtgttgatgt agatccagaa aaactggaaa tggagagtaa acttcataga aatttgctat 180
ttcaagattg tgaaaaagag caagacaaca aaacaaaaga tccaacccat gatgttaaaa 240
cccccacact cgag 254

<210> 853
<211> 247
<212> DNA
<213> Homo sapiens

<400> 853
gaattcgcgg ccgcgtcgac gtcatttgac aacatccctg gcttttgttt gtttctttct 60
gggtagagac aaatttactt tccatttctg ataacaacgg agtcagtctt ccctgctgcc 120
gaggattttt tgaaacagcg tgaatactgc tccttcgcat ttctgagaga gggcagaacc 180
gggtcatcgt gttgcttgac agagggccat gataactgtc tacagatatt taaagggtgt 240
actcgag 247

<210> 854
<211> 253
<212> DNA
<213> Homo sapiens

<400> 854
gaattcgcgg ccgcgtcgac aattagtgtg catcattaaa ttatcaaata agtataaatt 60
agtactcttc tttttctgga taatagaagg atcttagaac actttaattc catttatctc 120
cctcacagtt tttatgctat attgccatct acttacattc ttggtaaatt ttaaacttca 180
gaagacatta ttattattgt tgtttgaaca gttaatattt attgagagtt actcatatat 240
ttgccacctc gag 253

<210> 855
<211> 318
<212> DNA
<213> Homo sapiens

<400> 855
gaattcgcgg ccgcgtcgac acctgcctcg agcctaggct gctccttttc acctaattaa 60
cccagtttat aaatgggact cagttataaa gtttaggtcc acctcctcca ggaaattttt 120
tcctgacacc tccttcctcc caatctcggt tgggtactct agcattgtgc ttccaccctt 180
tgcacagagc aatcatcatg tttaccacat ctactattaa cataattgtt tctgtgtttt 240
tctcctccac aagatttatt ttttttagat gaggtgttgc tgtgttgccc aagctggact 300
tgaaccccta ggctcgag 318

<210> 856
<211> 249
<212> DNA
<213> Homo sapiens

<400> 856
gaattcgcgg ccgcgtcgac aggtttcagc ttcttcctga ttcaatcttg ggtggttgta 60
tgtttccagg aattcatcca ttttttaaat ttttttttag cttttttagt ttgtgtgcat 120
agaggtgttc ataacagtat ctgaaggctt ttttgtatta ttgtggagtc agtggtaatg 180
tcttctttgt catttctgat tggatttatt tggatctact ctcatttttt ctttattagt 240
ccgctcgag 249

<210> 857
<211> 212
<212> DNA
<213> Homo sapiens

<400> 857
gaattcgcgg ccgcgtcgac aggattccaa tcaatataaa tatatatata tatatacaca 60
cacatatata aaaagtataa tttttctatt tttgtttttg gttttaattt gcagagattt 120
gctgccagga atcaattttg agggttcaga tttagcttgg aagaaaaaaa agaaacatac 180
atccttcagt ataggagatg agggcactcg ag 212

<210> 858
<211> 426
<212> DNA
<213> Homo sapiens

<400> 858
gaattcgcgg ccgcgtcgac caaaaaacaa aaaaagaaaa tcttagaaaa agaaaataaa 60
ttgtaatatt tcagaatatt tgttggggag gatatgtgtg ctcaagaaat acatactgag 120
aacttaccat tgatgctaga gattgaattt ccccatgtct acatgaaaaa tgaatagaat 180
ataaacattt taaattgagc catgtctatc tgtattatat ttcttttata gaaattcatg 240
gaaatggtat attttaactg aattattaac actggggaca ataggcttta atcattatct 300
aatacctgta cgttgttttg aaattcatag cccaccacca ttaatttcaa aattgggttc 360
ttactcaaag agtgatgaaa aggcaccagt accaaatggt ctggccaaaa tgctacatgc 420
ctcgag 426

<210> 859
<211> 215
<212> DNA
<213> Homo sapiens

<400> 859
gaattcgcgg ccgcgtcgac catttgacct tttaacaaat ccctaagtaa ataaatagcc 60
cctcaggaaa actaagtttt tctctgctgt ttttttgctt gagagagcta taactgtaat 120
agacttatat ttctgaacat tttagtgctt gccaatattt ggtaatattt atgtttccta 180
tatttgtaat gaacattctt cttccggtac tcgag 215

<210> 860
<211> 672
<212> DNA
<213> Homo sapiens

<400> 860
gaattcgcgg ccgcgtcgac cccagcctcc cttcccacag aggccaccgt catggccagt 60
tgctgcagtt tctttccaga gaacctgtgt atgtgtaaag ctgtacaggc gtgggtacac 120
cacacagcct gtcttgcact gtggactgtt gagttactag tacatctaga attctcctgg 180
ctattccagg ctgcatgttt accttaacct tccctgtgat gtcttcatgc cgttgtcttc 240
ttatgcaaga ataagactca aatgactcca gaaagctaca cttcctgttg tgagtatatg 300
atatccattt ccctacatag ccactaacat caggttttta caattttatt tatttcttgc 360
tactttaaga aatttttgtg gtgaaataca tataatagaa gttgactatc tgaatcattt 420
ttaagtatac attcagtagt gttaagtatg tcgccattgt tgtacaacca atctccagaa 480
ctttttcatc ttgcaaaaca aactctgtac ccattaaata acattaaaca ttccattccc 540
tccagcctca gcaaccccat tctactttct gtttctgtga gtttgactat tccaagcact 600

tcatatcagt taaatcatga agtatttgtc tgtctgtgac tggcttattt ctctgagcac 660
agtgtcctcg ag 672

<210> 861
<211> 207
<212> DNA
<213> Homo sapiens

<400> 861
gaattcgcgg ccgcgtcgac ctacaagttt ggacttgttt ctggaatctg cctacttgtt 60
caaaatatta atagcatatg atattataaa ttaatgatta gttttatgta ttgcagaaaa 120
tatttaatta tgctgatttt tcctaatata tttttatgtt tacaatttga cttagtaaag 180
gatgaaaaca aagtagcaaa actcgag 207

<210> 862
<211> 171
<212> DNA
<213> Homo sapiens

<400> 862
gaattcgcgg ccgcgtcgac taaacacatt atgattttag taagacatat gcattattta 60
gacatgtact tcttaatatt aaagatagta tttgtaattg gttttgacct tattcagact 120
atggttagag tacatactaa gcaagaatta aaggctttcc attttctcga g 171

<210> 863
<211> 235
<212> DNA
<213> Homo sapiens

<400> 863
gaattcgcgg ccgcgtcgac gtgttttcag aaagagaaaa catctcctgc aaagatctgt 60
aggttgcacc ttgaaagaac aagacaaaac caaacttcaa gactatcctc ctgtttaaaa 120
ggagactagc aggtgtcaaa gagaggcggt aaagctcatg atacctgatg taatcagtgc 180
cctcctcctc ctggccgcag caggatgcct tcccttcaat gactcccaac tcgag 235

<210> 864
<211> 256
<212> DNA
<213> Homo sapiens

<400> 864
gaattcgcgg ccgcgtcgac tagaatcgtg gatccccatg gccctccttt gtcacatttt 60
tctttttact gttctcttac cccctttcac tctcacttca cttcctccat gctgctgtac 120
taccagtagc tcctcttacc aagaggttct atggagaatg tggcttccca gaaatattga 180
tgtcccatcg tataggggtt tttctaaagg agaccccact ttcaccaccc acaaccatat 240
acccccgaca ctcgag 256

<210> 865
<211> 265
<212> DNA
<213> Homo sapiens

<400> 865
gaattcgcgg ccgcgtcgac aattgacacg tcacactctg gtcagaaggt gttaagtagt 60
tcctgttatt caaggaatga agtacaacca ctttagccca gtgctcaagg ttatactttc 120
cttactctgt accaattctc tagtctcacc atcgcaggct gcctgcggcc ctcagaccca 180
tcacatgcat tcctgcctca gcgtctccct tctgtgcaac acctgtcctt ctcctggcac 240
taaccaaagt tcaccattcc tcgag 265

<210> 866

<211> 262
<212> DNA
<213> Homo sapiens

<400> 866
gaattcgcgg ccgcgtcgac cattttcttt ggctgttatg tgtaaacagt tcctctgtta 60
ctttgcatgt tatgttttat ttttcctctg cttgacaact tgtgccagag aaacattttt 120
ctacccсttt ttgtctactc ttccaacctg tcaaactgtt gaattttcct tctcttttca 180
tagtctctgc atttctaatc atgttcacta tagttcagtg ctgcccaata gaactttctg 240
ctgcggggcg ggggtgctcg ag 262

<210> 867
<211> 283
<212> DNA
<213> Homo sapiens

<400> 867
gaattcgcgg ccgcgtcgac atctacttct agctttttc ctattttggc tccggccgtt 60
ggttcctatc ttccccсgac tgcccgcgct cacagtcctg cttccttgtc ttttgcctca 120
tatcgtcagg tagctagttt cggttcagct gctcctccca gacagtttga tgcatctcaa 180
ttcagccaag gccctgtgcc tggcacttgt gctgactgga tcccacagtc ggcgtcttgt 240
cccacaggac ctccccagaa cccaccttct gcaccggctc gag 283

<210> 868
<211> 219
<212> DNA
<213> Homo sapiens

<400> 868
gaattcgcgg ccgcgtcgac aaaacgtcag aacatttggg gttttaaact gatttgttgc 60
tccctatcca gcctagacac cagtaactct tgtgttcacc aggacccaga cccttggcaa 120
gggataggct cgttggtgac attgtgaatt tcagatttgt tttatccact ttttttgcta 180
tttatttaaa tggtcgatca acttcccaca acactcgag 219

<210> 869
<211> 258
<212> DNA
<213> Homo sapiens

<400> 869
gaattcgcgg ccgcgtcgac gtaatacaga agggagtagg taaaaaattc tgtaattctg 60
aaaaagtatt agtataaact ttaattagta tttcatcttt aaatgttttt ctggctctgt 120
ccactgaaga agcttagaaa taatgaccaa atctgttaca tccataccat tgtgatctta 180
aaatatcttt ttctactaga agaaatggct ggttgcagaa attgcttatt ccccatgggg 240
caggaagtgc acctcgag 258

<210> 870
<211> 298
<212> DNA
<213> Homo sapiens

<400> 870
gaattcgcgg ccgcgtcgac ctgcatttta aatatattgg ggacagattg cgctgagacc 60
tggttatgag caagccaatc ttttgaatct agagaatgga attcttaggt ttatatttct 120
gttaagaaat actataaata tgactcttat gagaagactt tgttgctctg tagtgtttct 180
gaatactgta tttgttggat tgatcaaggc tatttttcaa aaagctctct gcttcctgtt 240
tgtttgtttg tttgtttttg agacagagtc ttgctctgtc gccggggctg aactcgag 298

<210> 871
<211> 150

<212> DNA
<213> Homo sapiens

<400> 871
gaattcgcgg ccgcgtcgac cgtccctctc tctgacagaa gccatataag gtccatgagg 60
gtagagattt tcttttttct ttgtgttaat tgctgtatcc tcagcacttg gaaaaagggc 120
ctggcacttt gggatgagcg aacactcgag 150

<210> 872
<211> 241
<212> DNA
<213> Homo sapiens

<400> 872
gaattcgcgg ccgcgtcgac attgaattct agacctgcct ctagtgtgtg ggtgtgtttg 60
tctttttgtc ttccatcttt tggtttacat ttaaatcatc tcaaaaaata tcccctgcat 120
gtatcattca gcttctcaga gtttttgtgt ttttgtctgt gtatgtgtgt gtgtgtgtgt 180
gtgtgtgtgt gtgtgtttaa aaacattttt tccttttgtt aggccacatg ctacactcga 240
g 241

<210> 873
<211> 228
<212> DNA
<213> Homo sapiens

<400> 873
gaattcgcgg ccgcgtcgac catgtctccg tccctgtcac gggtggttct tttcctcttc 60
ctctccctca gaagtctgcc catcctacaa ggagatgtgc aggaccctcc accccgaaca 120
ggtaactgcg tgccttccac ctccatcacg cagcctgacc ctgtgagccc ctctgtgctc 180
tgtggacccg tcaccctgag ctcctcagtt gctgaaccac ccctcgag 228

<210> 874
<211> 178
<212> DNA
<213> Homo sapiens

<400> 874
gaattcgcgg ccgcgtcgac atattaactc aaaagaaata gggtgatttt taaaggatta 60
ataaaattct gaaatgttaa gtagaagatt acattgtcta gtcttgtatt tcctccttct 120
gttgctctct ttcattcaca cactctcagt ttctcatatt tgtagctcat tgctcgag 178

<210> 875
<211> 179
<212> DNA
<213> Homo sapiens

<400> 875
gaattcgcgg ccgcgtcgac agtggctccg caggatatat ctgatttaaa aaataggaac 60
cacaataata atagctgctt atgcttatgg agcattgcca tgtgctagat aggcaccatc 120
ctcagccctt ggcaggtctg agctccttta tttcttccaa tcaacactgt cagctcgag 179

<210> 876
<211> 214
<212> DNA
<213> Homo sapiens

<400> 876
gaattcgcgg ccgcgtcgac caagatttta ccaaggccaa ttttagtagc tttgtttctg 60
ggtgattttg tctggtcaat atacagaaat aagaatgata atgaaagtga taatgatagg 120
aataataata ggaagagtag tgactttttg tctttgtgta tcaattcatt caacaaattt 180

gaccaagtgc ctgctacatg ccaaagcact cgag 214

<210> 877
<211> 436
<212> DNA
<213> Homo sapiens

<400> 877
gaattcgcgg ccgcgtcgac gtgcatgtcc caacaactca tctcaaatac taaattcaaa 60
agaaaaactg tagttctcct cagcattagc actaatttat ggtaacaatc atttctttta 120
aatgtctaac ttatttaacc ccttcatttt aaactgcaaa ttaaagcatg tatttacata 180
tttatataca aaaaacttca aaaacaaatt aatccaaatc ttggtccaag agtttccact 240
ttataagtgg tatggtacta tgctatatat atcctcttcc aaaagtctct taggacttgg 300
taagttccaa atattcattc acaaatggtt ccccttttaag cttaatgaac catatacttc 360
atttctgagt aaattagagg aaatattaca gaacacgctt tgtacaatac agcaccacta 420
ctgagaaggg ctcgag 436

<210> 878
<211> 174
<212> DNA
<213> Homo sapiens

<400> 878
gaattcgcgg ccgcgtcgac cttatttatt actgaaataa tctaaactga ataaataact 60
ttttaaaaaa ttacattggc cagtattagg ttcctgatgc gtatttggtg ttttgtttgt 120
actgctgggt tttttctctc cagtattgga tgcgttaacg gggatgcact cgag 174

<210> 879
<211> 229
<212> DNA
<213> Homo sapiens

<400> 879
gaattcgcgg ccgcgtcgac ctcagaaaaa aaaacaaaca aacatgttgg tcaaatttat 60
aattaaaagc acaatagtta ttggttgttt attgaataaa atcaggagtt ttaataatat 120
tgggtgtggg caccttgatg gatgggacca cagtatgaag gctgtagtaa tccagcatga 180
ggtgcccttt atttcttttt tcagattcaa gagcaggcac gacctcgag 229

<210> 880
<211> 110
<212> DNA
<213> Homo sapiens

<400> 880
gaattcgcgg ccgcgtcgac atttatctga tcctttacag aaaaagtttg ctaacccttg 60
ataacagata ctctaaaatg caggtttttc ttcttcaatt ggtgctcgag 110

<210> 881
<211> 239
<212> DNA
<213> Homo sapiens

<400> 881
gaattcgcgg ccgcgtcgac gtgacttgtt taactgcatc ttttgcccag tagttagtct 60
tttcctgttg ggacaccatg ttggtagttt ggaaatggtt tcttccatcc attgcctgcc 120
ttttagcttt gtcgatggtg ttctgttgta aattttggtg cacgtttaat gtgaacaatg 180
gttatgagac gagtgccatg agttcctgtg tgcctgtcac ccagcccggc acgctcgag 239

<210> 882
<211> 159

<212> DNA
<213> Homo sapiens

<400> 882
gaattcgcgg ccgcgtcgac ctgtgtggat ggactgagcc tagctaagtc ctgattcatt 60
ttgacttgag ttctctcagt gggaagaatg ggaaagattt acagcttcgt cctggtcgcc 120
attgctctga tgatgggaag ggaaggttgg gccctcgag 159

<210> 883
<211> 121
<212> DNA
<213> Homo sapiens

<400> 883
gaattcgcgg ccgcgtcgac ggggtctctt gcttttgttc ctctaaaaac tggtctgcta 60
actttttaat attttcttca tgctgtgctc tcaattcctt catctgctgt ccacactcga 120
g 121

<210> 884
<211> 257
<212> DNA
<213> Homo sapiens

<400> 884
gaattcgcgg ccgcgtcgac cctagcttga atttgaaaca acagcacatc ttaatttgga 60
cactaaattt tcatcaaaaa tatttcattg atttagattt cataaattta cagttgaaaa 120
agtagatgta catatccaaa ttgtcccaaa catgcttaaa atttttccag tatgtatgtt 180
gttttaaaat atttatattt ttgttgttgt tgttgttgtt ttttaagatg gatttttgct 240
cttgtcaccc cctcgag 257

<210> 885
<211> 141
<212> DNA
<213> Homo sapiens

<400> 885
gaattcgcgg ccgcgtcgac gtctctctct gagctctatt tgcttcagtg caacatgaag 60
ttcatgaccc agtccgcctt tgagagggca cttccgattc tcaacgtggc cctcgcatcc 120
ctccacccca gacaactcga g 141

<210> 886
<211> 286
<212> DNA
<213> Homo sapiens

<400> 886
gaattcgcgg ccgcgtcgac gcaacatgag gcttttcttg tggaacgcgg tcttgactct 60
gttcgtcact tctttgattg gggctttgat ccctgaacca gaagtgaaaa ttgaagttct 120
ccagaagcca ttcatctgcc atcgcaagac caaaggaggg gatttgatgt tggtccacta 180
tgaaggctac ttagaaaagg acggctcctt atttcactcc actcacaaac ataacaatgg 240
tcagcccatt tggtttaccc tgggcatcct ggaggctcgg ctcgag 286

<210> 887
<211> 264
<212> DNA
<213> Homo sapiens

<400> 887
gaattcgcgg ccgcgtcgac ggatcagaaa tattgcttgg aaagtgctga gctcatgatg 60
gatgctcaac aagcggtagt tatgataatg gcagggaacg cggtggggtt gcttgtcttg 120

ttttctgcgt gttttggcgg tctgcaaggg gagagcagcc agcaggcagg gcacctgtgt 180
acgtcgatga ctgaccaccc catggtaccc cagatctatc tccccaaaac actattcttt 240
ctgcctggga cccattctct cgag 264

<210> 888
<211> 290
<212> DNA
<213> Homo sapiens

<400> 888
gaattcggcc aaagaggcct atgaagcagg cgctcttggc tcggcgcggc ccgctgcaat 60
ccgtggagga acgcgccgcc gagccaccat catgcctggg cacttacagg aaggcttcgg 120
ctgcgtggtc accaaccgat tcgaccagtt atttgacgac gaatcggacc ccttcgaggt 180
gctgaaggca gcagagaaca agaaaaaaga agccggcggg ggcggcgttg ggggccctgg 240
ggccaagagc gcagctcagg ccgcggccca gaccaactcc aggcctcgag 290

<210> 889
<211> 243
<212> DNA
<213> Homo sapiens

<400> 889
gaattcggcc aaagaggcct agctaccaat tcttctactc ttcgtgctgt ttcttcctcg 60
atgagttttt cttctatttc ttgctgtcga atttttcgct gccgctcgaa ctccgctttc 120
ttctcctcct cctctcgctt ctgcttctcg tccaggctgc tgcgcttgct cctcacgttt 180
tgcacgttct tcctcctctc tagctttttg tgcggcaagc tcagcttgtc tctgtcgctc 240
gag 243

<210> 890
<211> 241
<212> DNA
<213> Homo sapiens

<400> 890
gaattcggcc aaagaggcct aagctggtgt cattacacgt caacctgcct tgagccaagt 60
cctgcttcac ctgcagcgcg aacaggtacc ttgtgagttc ttcttggagt tgtgtgtggt 120
caggcggaaa gaatttcacc acaaacttaa caacaacgtg ctttggcctt ctaatctgtt 180
tcacaatggg ttttaggaga tccagccaca ccgtgatctt tttgtgatca ggaaactcga 240
g 241

<210> 891
<211> 431
<212> DNA
<213> Homo sapiens

<400> 891
gaattcgcca aagaggccta aaaatatctg tttaataaca agataaccac atcaagatgg 60
ttggaaagct gaagcagaac ttactattgg catgtctggt gattagttct gtgactgtgt 120
tttacctggg ccagcatgcc atggaatgcc atcaccggat agaggaacgt agccagccag 180
tcaaattgga gagcacaagg accactgtga gaactggcct ggacctcaaa gccaacaaaa 240
cctttgccta tcacaaagat atgcctttaa tatttattgg aggtgtgcct cggagtggaa 300
ccacactcat gagggccatg ctggacgcac atcctgacat tcgctgtgga gaggaaacca 360
gggtcattcc ccgaatcctg gccctgaagc agatgtggtc acggtcaagt aaagagaaga 420
tcaagctcga g 431

<210> 892
<211> 384
<212> DNA
<213> Homo sapiens

<400> 892
gaattcggcc aaagaggcct agtctgtcct gttgtgtggg gcgaagtgat ggactctgcc 60
aggtggacat gctgtgggtg gatgttcccg gcgtgtgccg ggcctgaatg gacaggggcc 120
acttcacagc atgtcaggga aaatcactgt cacacaattc caatggattt tgtgctcttt 180
ttgaaaaaaa aaaattcttt agcgtaaaca tgaatttttt ttcaatgtag cccctgggga 240
atgaatgaaa ttttgagctt cttcaatacg taaaattaaa tttataccac tgagggagag 300
accctttctg aaagaagtat ggccaaaagc actttaatgc tgctgacatt gttgttttta 360
tgttcatttg ctggagcgct cgag 384

<210> 893
<211> 208
<212> DNA
<213> Homo sapiens

<400> 893
gaattcggcc aaagaggcct agtggggcct ggctatctag aaaccaccgc aatggctgga 60
gccaagtttg gtcaatgggg taaacatttc agaaggtagg cagggcatgc cctgaggcca 120
ggaggcctct gccgtcctgg ctgtgtcctc aggatggcca attctcacag aaaccaccac 180
aaggaaagat ctcctgggac gactcgag 208

<210> 894
<211> 479
<212> DNA
<213> Homo sapiens

<400> 894
gaattcgcgg ccgcgtcgac atcaatattt gtattatggt gctatatatt ggtaatgatc 60
ctttaatatt gggaagggat tttaaaaata ctgtgattaa actgggttct tcctttgatt 120
ttcatatttt aaataaagcc acagtcattt atacaaaaga aaagcatctg tccctgggca 180
aatcttttga ggacagaggt caaagtaaac tgcataaggt ttttacatca tttctgtatg 240
tatttgatat atagatcaat atctgtacaa atttaatctt ttattttctt ggtaactcgt 300
gatcattgag aaagtgtttg aaactttctc atgaagtgta tatataatgg cgtgaaaaat 360
tcctttggaa aaatttatgt tcctttcatt tttaccaaat tgcaaatttt cagcatggat 420
gtgaaaagca ttaaaattat aactttgtgt acaagatgaa aataattcac acactcgag 479

<210> 895
<211> 386
<212> DNA
<213> Homo sapiens

<400> 895
gaattcgcgg ccgcgtcgac atcaaaaatg agggatgtaa gtttcaatgt gagtatttct 60
gaatagtttt tttcaaatgc agccaagtca gtaatactct gttgtaactt tagatagggt 120
atctatgaat taaaaatccc tgaatgtgac attactctaa aatcttgcat cttgaactgg 180
agagcactgt tgttttctgg taggaggtcc atgaagcatg cattagaggt agcttctttt 240
cctggaggaa gatttggatg agtatgtatt ttttatattg aaacagacat gaatatattt 300
tggagatgaa agtaaaacta gcaggaatgt taagaaaaaa cttaaaattg ctttaaagta 360
taatgtcgaa tccccgaat ctcgag 386

<210> 896
<211> 202
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (40)..(41)

<220>
<221> unsure

<222> (62)

<400> 896
gaattcgcgg ccgcgtcgac actttaacca gtagaacatn ncaaaaatga cactttgcta 60
tntttgggta caagccttga gcatgtcagg cagcttctac ttttgtactc ttgggagctc 120
tgagttgctg ccgtgcaaga agctgtcata ccttgctgga gagatgatgt ggagaggaag 180
agattccagg acagtactcg ag 202

<210> 897
<211> 266
<212> DNA
<213> Homo sapiens

<400> 897
gaattcgcgg ccgcgtcgac cacagacttc tccactgata tctatgttag tatttatcca 60
gcttcttact tggtatatgc acttggattt ttataaggta tctcaaactt aatatgtcca 120
aaactaaact tctgattctc tgtatacttc cagcttgctt ctccccacagt gtttccaatc 180
tcagtaaatg gcaaccctat ccttctagtt ctttaggcca aaagcttgga atcactcttc 240
cttttctttc cccacatccc ctcgag 266

<210> 898
<211> 180
<212> DNA
<213> Homo sapiens

<400> 898
gaattcgcgg ccgcgtcgac cttgcattgc gtggttttag ggaagcaggg tctggctttt 60
aatatgaact gcaaaaagca gcttctcact gatatttttt tgttgttgtt tctgggggt 120
tttttgttt tgtttttaat gcctttgagt gcatattttc ttcctcgtct gaaactcgag 180

<210> 899
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<212> DNA
<213> Homo sapiens

<400> 899
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ccatctcaaa aataaaaaga gttgctagaa aaggtagaac ccacatttct ctggcttcca 120
aagcctgtgt tctttctgct gtattatgct tttttataac aaccaggcta atatatctta 180
aataccatcg tacactcgag 200

<210> 900
<211> 163
<212> DNA
<213> Homo sapiens

<400> 900
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agagggccgt ggagctgagg gtgggatttt gttttgtttt gttttgtttt gtttttgttt 120
ttttgagaca aagtgttgct ctgtctccca agctggactc gag 163

<210> 901
<211> 186
<212> DNA
<213> Homo sapiens

<400> 901
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attatcttct tctactttta taaaacgacc gatcctaaag atagtcaaca tccccttctc 120
caattggtgg gtagcgcagg aaatactgat caaaatcata ttcttgttgc aacaggcgca 180

ctcgag 186

<210> 902
<211> 212
<212> DNA
<213> Homo sapiens

<400> 902
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cccacagtag accctcccac tcaaatctgc ccccaatacc ctttgcaacc aatattaccg 120
cactacactt tatcttccct aagggtttcc tgctcctcct ggtcttaggt gaggtcattt 180
ctctgccagc ctttaaagtg gaagccctcg ag 212

<210> 903
<211> 192
<212> DNA
<213> Homo sapiens

<400> 903
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attattggtc tcaggaaagt caagttaaat atgcaaattt aatgaataat aggaaattac 120
ttaaatatct ttaattttat aagcttcctt atgacagttc ttatccactg tattctttcg 180
gttctcccta ta 192

<210> 904
<211> 196
<212> DNA
<213> Homo sapiens

<400> 904
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gcaccttttc ctatttgga ctctaattcc agcagctgtg tttaaacctc ctggagattt 120
acagaaatac gtcttgccat tctgtgttca ttcgccagat tcattgctag ttgggataca 180
agcaagccga ctcgag 196

<210> 905
<211> 259
<212> DNA
<213> Homo sapiens

<400> 905
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ctttttctta catgagtact ggttccagat catctagatg cttttgtttt ctccatatgt 180
cttgggcatt cccttctgtg tctgcatgct gtttctctcc ctcagatgtt gtctccccaa 240
ctcccataaa agtctcgag 259

<210> 906
<211> 208
<212> DNA
<213> Homo sapiens

<400> 906
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ggagatggtc ttggagagtt ccaaaagggg tgtgtgtgtg tctgtgtgtg tgtctgtgtg 120
tgtgtctgtg tgtgtgtctg tgtgtgtgtc tgtgtgtcta atatttagac taaaccatgg 180
taaatgtacg cacccagtaa acctcgag 208

<210> 907
<211> 212

<212> DNA
<213> Homo sapiens

<400> 907
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tctgaaagag taaaccaatt tggttactca ttttaccaat ttggttttga ttttgcaagt 120
ggttacaact catgagagga ttcttatttc tgatcaatat attgtgtttt tggaaaggac 180
ttctgggaaa taattatgat gaagccctcg ag 212

<210> 908
<211> 137
<212> DNA
<213> Homo sapiens

<400> 908
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accatcaggt tctaggggtt gtgataggca caacatatat attctacttt tggctattga 120
ggggggtcaa cctcgag 137

<210> 909
<211> 209
<212> DNA
<213> Homo sapiens

<400> 909
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tacgaatctt aactgctggt atccttaaaa cctctgaagt tgatgaatga cttttttaaa 120
aaatgaattt atgggttctt aacatgtatt tgtgttttat tttagtcctt atttgtttta 180
gtgttcacat ctcgcccagg ctactcgag 209

<210> 910
<211> 392
<212> DNA
<213> Homo sapiens

<400> 910
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gttatttaaa aaagtccaag tgaggtttta atcctattta aatctaccac atataatctg 120
gtgtgtgtat gtatttgtat gtctcattgt gttttatgaa taaagatata tcctcatctt 180
tgtcaagcaa actacaaagt attagataat actttctcta gttttctaag catccattaa 240
taatttatag tatggacatg aagatgtttt tctgtgcttt tgttgttgtt gttgttgttt 300
gtttttttga gacaaggtct ctctctgtca cccaggctgg agtgcagtgg caggatcatg 360
gcctactgca gcctccacca gccaggctcg ag 392

<210> 911
<211> 192
<212> DNA
<213> Homo sapiens

<400> 911
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tggcaccaca caagccctat atagcaggaa ggaaatatga ggttcagaaa gagtctagtc 120
tcagtcttac ctttaacttc actgtgtgac cctggaaaaa tatctttctt ctctactccc 180
actcaactcg ag 192

<210> 912
<211> 226
<212> DNA
<213> Homo sapiens

<400> 912
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gacaaaataa tcttaaattc ttataatctt tcaacttaag tccttttttt ataagctttg 120
ttttatttcc ttactttact tttgatcctt cccagtcctt cagaatttta acttctatat 180
catggtttta ctctgccaat tcccatatta ccttcccctc ctcgag 226

<210> 913
<211> 465
<212> DNA
<213> Homo sapiens

<400> 913
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ctccagtgcc cgggagaaag gcaagaaaac tgaggcacag agagattgtc acacagccag 120
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aacaaatcaa cttttactct gtgagtaatc cagggcctat caagactaca ttttagttga 240
ctgcaaggcc tctgaggcac gggaattcac agctgagttc ttggagaagg tccttgagcc 300
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gtggacattt cagccttgaa ggcagtggtg cagcttgctg agccatacct ctgtgaatct 420
tgagcgagta ctttcacctt ggagtgtgtg aaagagctcc tcgag 465

<210> 914
<211> 172
<212> DNA
<213> Homo sapiens

<400> 914
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aaagtaaact ataaacttgt acaaattggt tttaaaaaaa attgctgcca cttttttttc 120
ctgtttttgt ttcgtttttg tagccttgac attcacccac gcaaccctcg ag 172

<210> 915
<211> 185
<212> DNA
<213> Homo sapiens

<400> 915
gaattcgcgg ccgcgtcgac gtcctgccaa tttacagtga gcttaaagac cgatcacaga 60
aaaaaatgca gatggtttca aacatctcct ttttcgccat gtttgttatg tacttcttga 120
ctgccatttt tggctacttg acattctatg acaacgtgca gtccgacctc cttcacaaac 180
tcgag 185

<210> 916
<211> 219
<212> DNA
<213> Homo sapiens

<400> 916
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tggattacag taatgctttt gttggcctgt tgtatgacaa actatttaaa ggttcacatt 120
ttgatttgta tttgccaaca agccctttttg cttgttaaag ctatagctaa ctctcaggag 180
ataattgcag ttctactctt agaggatggc tgcctcgag 219

<210> 917
<211> 270
<212> DNA
<213> Homo sapiens

<400> 917
gaattcgcgg ccgcgtcgac gaaatacagt gtatatatca ttgtatagta cataaagcac 60

tgaatgatac atttataatc agaattttta aaaaatcctt agatttatag tcagaaaaaa 120
agacttgtag agattagaaa gattatggat tactttgagg ctatgaaaat tgataattct 180
ttaatttcaa cagtcagata tatgttagtg tttagagtac ttttcagctt tctattagaa 240
catccgaaag ttaggggaca gaagctcgag 270

<210> 918
<211> 154
<212> DNA
<213> Homo sapiens

<400> 918
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aatacttaga aaggaacaca aagatttttt tcaaatgaga aaactttcag cttttatcaa 120
atatttattc attcaaacaa cagtagctct cgag 154

<210> 919
<211> 210
<212> DNA
<213> Homo sapiens

<400> 919
gaattcgcgg ccgcgtcgac gacagggtct tgctgtgtta ctcaggctga tctcaaactc 60
ctggcctcaa gcttcctccc accttggcct cccaaagttc tctaatatca tttattgaaa 120
ggctttacct gttgaaacac ctaggtagct atattgaaaa tcaatccatc atatatgcat 180
gggtctaaaa ttttgaactg tattctcgag 210

<210> 920
<211> 551
<212> DNA
<213> Homo sapiens

<400> 920
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tagattcaag acataatctc ttgtaagatc taaatagagc aaatgtaaac aaaagtgcat 120
ttttgtattc ttgttaattt tagatgcttt cctagcttac aaaaagttct atttttgggt 180
taaaaatcaa tcaactttct gatatttccc cttctgcaat gttattgttc ataagaaaac 240
acgagctgaa aatggaaatc tgcagttgtt tcagttgtct tgaatttctt tcagtggcca 300
catcatttcc acgttttcca catccgggag gaagcctgga ctgtgcagcc ttcgggcacc 360
cggcacagac actgtgctgg caggagcttc agacacgcca agtggatgga tttggattga 420
acgcatatga aacaggagac gggttctcat gtgagatcaa agctcctcca aagcctgttc 480
aagctctaag cgattctcaa atgttaccat ttattaaagg taaactacac ctgttgaagc 540
ccgcgctcga g 551

<210> 921
<211> 164
<212> DNA
<213> Homo sapiens

<400> 921
gaattcgcgg ccgcgtcgac ctgccccggt gtgtgatgtt cccctccctg tgtccatatg 60
ttctcattga aacaatgatt ctcttaaaca actctcaaat ctgcccactt ggctacatgc 120
ttttgcaata ttccagacca aattaccatg atctgtcact cgag 164

<210> 922
<211> 194
<212> DNA
<213> Homo sapiens

<400> 922
gaattcgcgg ccgcgtcgac ctctgtctta aaaaaaaaaa aaaaaaaaaa aaaaagttta 60

tggatctttt gatacagatt gaaaaagcct ttattcaaca cctaaaatgt gtcaggtgct 120
ttggctttgt actaacatgg ttactgatta ttatggtttt atccctttta aaatacaaag 180
aagcaggtct cgag 194

<210> 923
<211> 200
<212> DNA
<213> Homo sapiens

<400> 923
gaattcgcgg ccgcgtcgac gagatgcttg aggtgcagtg ttggggatcc agagccatgt 60
cggacctgct actactgggc ctgattgggg gcctgactct cttactgctg ctgacgctgc 120
tggcctttgc cgggtactca gggctactgg ctggggtgga agtgagtgct gggtcacccc 180
ccatccgcaa cgtactcgag 200

<210> 924
<211> 158
<212> DNA
<213> Homo sapiens

<400> 924
gaattcgcgg ccgcgtcgac ctactacctc accgagaact cctccaccac tgactgttca 60
ggatccctta tgtcctgcag tttgtccctt agaagaatta tctccagata gtattgatgc 120
acatacgttt gattttgaaa ctatccccca tcctcgag 158

<210> 925
<211> 187
<212> DNA
<213> Homo sapiens

<400> 925
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tattgtgtgc tagttactta atatcagtgt ttattccatt ttcttcatta tcatattcca 120
tattataata attagatgtg aagacatgca ctttcgtgta ttgagtattt ataggatcag 180
tctcgag 187

<210> 926
<211> 164
<212> DNA
<213> Homo sapiens

<400> 926
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gtttttaaaa ttcctggaga aatcatatgc tgtgatcaac catagcgctg ttttttttt 120
aatagcagga aatgtatata agtctattac cgcacttact cgag 164

<210> 927
<211> 192
<212> DNA
<213> Homo sapiens

<400> 927
gaattcgcgg ccgcgtcgac cttgcttcag aaattgaaat ctgaaggacg tcgggtgctg 60
attttatcac agatgattct tatgttggac attttagaga tgttcttgaa cttccattac 120
ctcacctatg taagaatcga tgaaaatgcc agcagtgagc aacggcagga actgatgagg 180
agtcccctcg ag 192

<210> 928
<211> 167
<212> DNA

<213> Homo sapiens

<400> 928
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc ctcgagcctg 60
accaacatgg tgaaatgctc tctctcctaa aaaaaaaaaa tttatatata tatatcagcc 120
aggtgtggtg gcacgtgcct gtgatcccag ctacgctgga gctcgag 167

<210> 929
<211> 144
<212> DNA
<213> Homo sapiens

<400> 929
gaattcgcgg ccgcgtcgac acctcctcca tttaaataaa ctggtgactt tccttttatt 60
ttttaaaagt ggaaacccgt tgtgtgcctc tcgatttaag ggtttctgat gacattattc 120
ttaagaccag cattgatcct cgag 144

<210> 930
<211> 213
<212> DNA
<213> Homo sapiens

<400> 930
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tattttgtct ttcggtggtg tcaggtgtaa tagctcccat tttgtttatc ttttcaaaga 120
accagctttt tttgtttcat ttatcttttc tattttttta tttttgtttc aatttcattt 180
agttctgctc tgatgagaat gctacttctc gag 213

<210> 931
<211> 252
<212> DNA
<213> Homo sapiens

<400> 931
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aagtctaatt tggggaaaat aaagagcaac agaaaagaga acacttggtc caacacataa 120
aaagggtgat aatattttag agagtttggg tagacttgaa tattatttgt ttagaacctg 180
aatctcaagt ctaagtctgt aacaagattt ctcttccaga tgatgaggag tctgatgagg 240
agagctctcg ag 252

<210> 932
<211> 437
<212> DNA
<213> Homo sapiens

<400> 932
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tcaggagctc ggtggcatgg cggcggtggc tgccccgatt tcctccagct gccactcctt 120
gcttcgtgtc cccggtccct agacgcctcg tctcctcccg tgtccctctt cccatggagt 180
cagtacggat cgaacagatg ctgagcttgc ccgccgaggt cagcagcgac aacttggagt 240
cggcggagcg aggggcatca gcggcccaag tagacatggg cccccaccca aaggtggctg 300
cagagggccc cgcacctcta ccgacgcggg agccagagca agagcagtct ccggggacct 360
caacgccgga gagcaaagtc ctgctcacgc aggcagacgc cttggcgtcc cgggggcgaa 420
tccgtgaagc cctcgag 437

<210> 933
<211> 137
<212> DNA
<213> Homo sapiens

<400> 933
gaattcgcgg ccgcgtcgac ctataagctg ttgcaacttt aggttcctca atggatacaa 60
aatttggcat tatactggct ctatcttgca caagtatgat gtgccatcaa atgcagaatt 120
atagcaggaa tctcgag 137

<210> 934
<211> 190
<212> DNA
<213> Homo sapiens

<400> 934
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ggaaacaaag gacccatcgc aaatgttttc catgctgatc tccaaagtgg tgagtttatg 120
tgtgattttt attttgttta tgctcttctg tattttccga atttcataca ataaatatct 180
gttactcgag 190

<210> 935
<211> 169
<212> DNA
<213> Homo sapiens

<400> 935
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atttttcata gcattcacct tacttacctt tttaatgcca gtggggtttg caatgatagt 120
ctctgatatt gcagatttta gtgatgtgtg tcttcccccc ccgctcgag 169

<210> 936
<211> 159
<212> DNA
<213> Homo sapiens

<400> 936
gaattcgcgg ccgcgtcgac cttttcccac cgcccattcc cttcattttt gcccctcttt 60
gcctggtgct gaatgggctg ctcttctttc accatcatca gcttcatggt tttcttttttt 120
ctttttaaaa ctgtattttc tttgtgcggc actctcgag 159

<210> 937
<211> 234
<212> DNA
<213> Homo sapiens

<400> 937
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cctcaaatat atttaaatac tagttctgtt atcttgtttt ggctttcttt tttaggtacc 120
ccaatgatgc atatgttgac tgtgctgtgg ttgttttctg gcgattttat tcttaccagt 180
cactgttttc agtgttgtct ttttcttact caacattctg caaagtcact cgag 234

<210> 938
<211> 152
<212> DNA
<213> Homo sapiens

<400> 938
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tttgctgtct ctaatttaga cccttattac catacacctg gtttatgttc acagtctcct 120
aaatgatctc cttcataccg ctagtactcg ag 152

<210> 939
<211> 275
<212> DNA

<213> Homo sapiens

<400> 939
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ttcttccttc tgcaaccctg ctcctatcag ctgaaccctt ctttcggagt gttagtgagt 120
acccgtctct ccccagcccc tcagctggtg ggcctgggtg tgtcagcggc aaatggggct 180
ctggttccaa tgggccactc tcatctctct cttgttcctt gtgcagaaaa cctttgcttc 240
actccactgc cctctctagt tcccgatccc tcgag 275

<210> 940
<211> 246
<212> DNA
<213> Homo sapiens

<400> 940
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tgttaaccct tttattgcat ttaatttcta caggtgttag tctactatta tttttgttcc 120
agtatctcat caagtcaaat aagcacagag taagaatttc aaagctagag agggctgaca 180
ataatagaaa acagaaacat actcaatata tactcctctc tcactatgaa gctggggcta 240
ctcgag 246

<210> 941
<211> 168
<212> DNA
<213> Homo sapiens

<400> 941
gaattcgcgg ccgcgtcgac atttaattaa tcacttcaag acatttttga tattacagct 60
tttgtcctta ggtggagctg ttaaagttaa ataagtgtga atatctgtca aatacagttt 120
ttgcaagagt gcatgtacat tttatatatt gtaagaaaag ctctcgag 168

<210> 942
<211> 205
<212> DNA
<213> Homo sapiens

<400> 942
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tataagtgaa aatactgtca tttcaatttt ctgctttaaa ttgtttttaa taagcattcc 120
aaagtgatac agacttaagc ttttaatcaa tcagtcattc agttgataga caaagttagc 180
gatgctttat gctaggatac tcgag 205

<210> 943
<211> 188
<212> DNA
<213> Homo sapiens

<400> 943
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ctttattttt cagttttttt cttctcctta tccaggacac atccccacca gacaccagct 120
cctctgccca atccaggcct ctatccccca ccagtgtcca tgtctccagg acagccactc 180
acctcgag 188

<210> 944
<211> 241
<212> DNA
<213> Homo sapiens

<400> 944
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acttagtgac atttatttaa atttcctaat gtctttttat agtttgatag cttttttta 120
ttcttttaat tttttttttc ctgctgcctc tctaattgca gaaagctcat ttatttttag 180
cacatttcat tttgatattc cattatctgg gtgtaccaga gtttctccat atcacctcga 240
g 241

<210> 945
<211> 355
<212> DNA
<213> Homo sapiens

<400> 945
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atatgtcttc tactttgcct ccttcattct actactgaga gaggtacttc gacctggtgt 120
cctgtggttt ctaaggaatt tgaatgatcc agatttcaat ccagtacagg aaatgatcca 180
tttgccaata tataggcatc tccgaagatt tattttgtca gtgattgtct ttggctccat 240
tgtcctcctg atgctttggc ttcctatacg tataattaag agtgtgctgc ctaattttct 300
tccatacaat gtcatgctct acagtgatgc tccagtgagt gaactgtccc tcgag 355

<210> 946
<211> 187
<212> DNA
<213> Homo sapiens

<400> 946
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gactctttta aagaaaaaat attcagtctt taacactcgt taaagcatgc aaaggaagac 120
tttattcagg atcatcgtga taggtattgg aagcacagca gtgagatttt gcaatggggc 180
actcgag 187

<210> 947
<211> 298
<212> DNA
<213> Homo sapiens

<400> 947
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gtgtttagct ttgtcactac acttaaggag ggcatttttt attttaaacc aaaaggggac 120
agaaagctta gtgaggagtt tagaagccct acccttcaa gaagtgttga tggaattgaa 180
gacaaaccca ggagaaggga acacgagggt gaggagaaca gggtggcctt cagacaccca 240
ggccaacaca tgtcaagggt tagacttact ggaaaactcc agagcgctga acctcgag 298

<210> 948
<211> 214
<212> DNA
<213> Homo sapiens

<400> 948
gaattcgcgg ccgcgtcgac aaacaaaaca aatttcctac ctcaggatcc aaaagatatt 60
atcctatatt gtctcctaaa agttttatag cctagccttt tacatttagg ttcttaattc 120
ttaatccacc tggaataagt ttttgtatat ttttaaaagt agaggtttta tctcattttt 180
cccgatagat atgcaattat ccctgtacct cgag 214

<210> 949
<211> 216
<212> DNA
<213> Homo sapiens

<400> 949
gaattcgcgg ccgcgtcgac tgcagattgg ctccgagccc ctgacaccat gtatttgttg 60
gactttgtga agccagaatt tctcttgctt aggacacttg ctcgatgcct gattttgtgg 120

gatgatattt taccaaattc caagtgggtt gacagcaatg ttcctcaaat tataagagaa 180
aatagtatct ctctcagtga aatcgaatgt ctcgag 216

<210> 950
<211> 272
<212> DNA
<213> Homo sapiens

<400> 950
gaattcgcgg ccgcgtcgac agtatctgtt tcttttaaat ggagcaggac tttacaatga 60
ttacaaaatc attctatatt actttttttt tattccagcc ctttacagct gtctcaccta 120
ttcataattc agtagcagct ttttctttaa gatactcatc ttttttgcat tcatgtttca 180
ctagtttatg cagtaattta gataatttag ttactagcgt gagtacacct accacaaaca 240
acatgggaat aaacaaaacc gaatcactcg ag 272

<210> 951
<211> 224
<212> DNA
<213> Homo sapiens

<400> 951
gaattcgcgg ccgcgtcgac atataagagc acgttgtaaa cttgaaagag acaaaggcac 60
aaatgtggct gttgattaat ttgactgctt ctcgttgctc gtcacctcca tgccatgcac 120
tgtgcttgct aattgcttta tgggggcatt ctcttattta ttccccagcc ctgggaaata 180
ggagctgtca ttatccttct ctttctgcac aaggaaaact cgag 224

<210> 952
<211> 164
<212> DNA
<213> Homo sapiens

<400> 952
gaattcgcgg ccgcgtcgac gggggagcag gataaaagcg gtctttcagt ttttattata 60
tgtcattctc ctatgttttt caaatcatta ttctatgtct cttctcagta aggcctatcc 120
tgaccaactc atctaaaatt acaacttccc accacactct cgag 164

<210> 953
<211> 210
<212> DNA
<213> Homo sapiens

<400> 953
gaattcgcgg ccgcgtcgac gcattttgtg ttttcctacg tggctcattt cagccaggta 60
tagttttctg tgttcacctg gtatttctta cagacaaaaa tcatgaaaaa gcgaatgcaa 120
aatttcagta tgttcaaatt gtttcttagt atatcggtgg ctttggaatg catttgcatt 180
ctcaaaacaa gcttcacagc aaaactcgag 210

<210> 954
<211> 191
<212> DNA
<213> Homo sapiens

<400> 954
gaattcgcgg ccgcgtcgac ataaaattac gtcattattc atttgttcat tcattcaaca 60
aatttttgat gaagtaaaat aatagtataa gcataacaac tgctatttat tgaacactta 120
atatgctcca ggttctaata tacatacttt actggctgta tcctacacaa aacacacaac 180
aagcactcga g 191

<210> 955
<211> 195

<212> DNA
<213> Homo sapiens

<400> 955
gaattcgcgg ccgcgtcgac atttcttatt agccaatatt tattaagcat ccgctgagaa 60
ctttcctgtg cattgggctt acgggaggat ttttttgct taagtgtgat tacactgcca 120
ttcttgaact tgtttctcac ttaggagaaa caatttgagg gtaatatgaa cagaatattt 180
gtgagcatac tcgag 195

<210> 956
<211> 231
<212> DNA
<213> Homo sapiens

<400> 956
gaattcgcgg ccgcgtcgac ctacttacta aattgagttt ttaaaaagac ttagtgtgac 60
atttgacagt gtctttcaaa cgaacttctc taacaagttt atagttattt tcctgtttca 120
acactattag aagtcttata aattatgcta attagcatgg cagtcatgtt acacactctt 180
aacattgcca aagaactgtt gatttcgttt gagaaaaccc caggactcga g 231

<210> 957
<211> 214
<212> DNA
<213> Homo sapiens

<400> 957
gaattcgcgg ccgcgtcgac cgagatccac ggctgcatcc cctacgaacc ccatgaaatt 60
cctgaggaat aaagcaataa ttcggcatag acctgctctt gttaaagtaa ttttaatttc 120
gagcgtagcc ttcagcattg ccctgatatg tgggatggca atctcctata tgatatatcg 180
actggcacag gctgaggaaa gacaacagct cgag 214

<210> 958
<211> 183
<212> DNA
<213> Homo sapiens

<400> 958
gaattcgcgg ccgcgtcgac taattacctg aagctttagt aataaagaac taattttttt 60
tgtcagttac cacattttgt ttttagcttt aagaggttag tagtgcacaa tactgaggct 120
aaaggttaag caagatttcc aggtttacag agatattaat taatctggat gaggcttctc 180
gag 183

<210> 959
<211> 199
<212> DNA
<213> Homo sapiens

<400> 959
gaattcgcgg ccgcgtcgac atttgcgttg actgtggatt tctctctgcc tttggaacat 60
ttgtgcaagg atgagagggg atagtttaga tcctctaact gcatatgctg taggttataa 120
agccacagta atgtgtttcc tttgcagttg tgccttctat tccttgctcc agactagctc 180
tgatagggaa gctctcgag 199

<210> 960
<211> 195
<212> DNA
<213> Homo sapiens

<400> 960
gaattcgcgg ccgcgtcgac ctttttttaat actatgaaga aaccaaggca gaattacgac 60

ctctggttct ttttcttttt ttctttttta gacaggttgc gttctgtcgc cctagctgga 120
gtgcagcggt gtgatcacag cacactgcca cctccacctt tgaggctcaa gcagtcctcc 180
catctcaagc tcgag 195

<210> 961
<211> 161
<212> DNA
<213> Homo sapiens

<400> 961
gaattcgcgg ccgcgtcgac ctcaaattta aaaaaaaaaa aaagaagaag aagaaaacta 60
gtgggaaaaa agtgagagga atactttttt gaaattggta tcggaaggaa ctggagaaga 120
gaaaacaaca gtgccaaatg agaaaagaac agttcctcga g 161

<210> 962
<211> 252
<212> DNA
<213> Homo sapiens

<400> 962
gaattcgcgg ccgcgtcgac caaagagtct tgaattcttt tgttttccca gtaccaaatt 60
tactttagtt ttatctatga aatggtgata aactttcgtt gtaagtatca tttgatagca 120
ttgaagtatt taactttttt gttggagcca gagtctcagt ctaggttgga gtatagtggc 180
gccaccggct ctatcttagc tcactgcaac ctccatctcc caggttcaag cagttctcat 240
gccttactcg ag 252

<210> 963
<211> 153
<212> DNA
<213> Homo sapiens

<400> 963
gaattcgcgg ccgcgtcgac tgctttgtgg acacagattt tcagggagat ttaggggaga 60
gaaacttacg agtgaatgag atactttatt ctaaacagtt tgaatgtcat tgtgattttt 120
ttgtctttag ttgatgatgg tgaggtcctc gag 153

<210> 964
<211> 216
<212> DNA
<213> Homo sapiens

<400> 964
gaattcgcgg ccgcgtcgac gccaattcct tttttttca gggccaattc ttaatacatt 60
ttaaggattt gtgaacagat gggctgcact gcatttgtgt tgatcatgat gttctattct 120
agacaactaa gaatgtcaaa aagcttccta tcttatgaca actccagtcc agtgatggcg 180
gctacttgga gcactgggtt agaaagaaaa ctcgag 216

<210> 965
<211> 241
<212> DNA
<213> Homo sapiens

<400> 965
gaattcgcgg ccgcgtcgac ccctaaacat gttaccaggt cttatccatt ccccgttaat 60
ttgcaccacc cccaaacact acattcgctt tggctcaccc tttatccctg agagacgtcg 120
aaggcccctt ctgcctgatg gcacattcag ctcctgtaag aaggtatgtc tgtgtttttg 180
tgtgtgtgtt gtgtttatgt gtgtgtgctt tattttttta agcctaagat tccagctcga 240
g 241

<210> 966

<211> 252
<212> DNA
<213> Homo sapiens

<400> 966
gaattcgcgg ccgcgtcgac ggaaaaggaa ttctccaaaa aggtgaccca gagcatttgt 60
tttgcaccag ctttgcctgc ccactgagtt cctttgacca gggttgcctg taaatcttcc 120
agggagattt caacacttgt ttgtcttaaa tactttctgc tatcatctca ttgccatcca 180
ctcttcttcc agggtctgga tatattttgg aaagggattt agatgaaact ctattttgct 240
gtggtactcg ag 252

<210> 967
<211> 140
<212> DNA
<213> Homo sapiens

<400> 967
gaattcgcgg ccgcgtcgac atagctttgt agagtgcaat cgactgttaa agtggtgtcc 60
tgccccagat tgccaccatg ttgttaaagt ccaatatcct gatgctaaac ctgttcgctg 120
caaatgtggg caatctcgag 140

<210> 968
<211> 180
<212> DNA
<213> Homo sapiens

<400> 968
gaattcgcgg ccgcgtcgac attaattatt gctatgtctt tttacttgct ttattttcta 60
tcttcatgga ttaatttttt ccaaatgatt ccagaatctg ccacacacct accattcatt 120
ttttcccacc aaatgctcag ttgtgtcagg ccatctgtcc attccccgt caccctcgag 180

<210> 969
<211> 475
<212> DNA
<213> Homo sapiens

<400> 969
gaattcgcgg ccgcgtcgac atcctactat gttgacagac atgatgaaag ggaatgtaac 60
aaatgtcctc cctatgattc ttattggtgg atggatcaac atgacattct caggctttgt 120
cacaaccaag gtcccatttc cactgaccct ccgttttaag cctatgttac agcaaggaat 180
cgagctactc acattagatg catcctgggt gagttctgca tcctggtact tcctcaatgt 240
atttgggctt cggagcattt actctctgat tctgggccaa gataatgccg ctgaccaatc 300
acgaatgatg caggagcaga tgacgggagc agccatggcc atgcccgcag acacaaacaa 360
agctttcaag acagagtggg aagctttgga gctgacggat caccagtggg cactagatga 420
tgtcgaagaa gagctcatgg ccaaagacct ccacttcgaa ggcatgttcc tcgag 475

<210> 970
<211> 133
<212> DNA
<213> Homo sapiens

<400> 970
gaattcgcgg ccgcgtcgac ctccaatcct tcctatgcat ttccctctct tcctcctact 60
atacaggtgt ccctgccctg ccagcccact gggcaacttc ccccatctcc ctatacctcc 120
aaacactctc gag 133

<210> 971
<211> 132
<212> DNA
<213> Homo sapiens

<400> 971
gaattcgcgg ccgcgtcgac ctgatttttc ctcctacata gttgtatgtt gttattttag 60
cttgcttttt tatgacagtt tcaggcacat tttatatgtt aattaagcat gcatatagcc 120
agctttctcg ag 132

<210> 972
<211> 188
<212> DNA
<213> Homo sapiens

<400> 972
gaattcgcgg ccgcgtcgac tctgacaatc agtttatgtg aatacatgtt ttatggatta 60
aaatattaga ttattattat atcctctaaa tgaattggct tgttatcgtt atgaaatggc 120
cccctttatc cttagtaatt ttttttgtt ctaaaatgtc ctttggtatt gatgcagccg 180
tgctcgag 188

<210> 973
<211> 156
<212> DNA
<213> Homo sapiens

<400> 973
gaattcgcgg ccgcgtcgac gtgagatgtg agattgaaaa agtgtaagat gtcagttaag 60
attacaataa aaactggaag tatattcttt tttcttttat cgttattata tttatatttt 120
ttcaagacag ggtcttgctc tgtccccaga ctcgag 156

<210> 974
<211> 189
<212> DNA
<213> Homo sapiens

<400> 974
gaattcgcgg ccgcgtcgac atctacctca gttaaacagt tgggtgctat tactaagtct 60
gtcaaattaa attggaaaaa gtaaccaaac agtgagatac aactccacat gaaacttgaa 120
attgtaattt ccgtttattt aatgatattt ttatttattt gtgcctttta tgttgaaccc 180
cttctcgag 189

<210> 975
<211> 175
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (56)

<220>
<221> unsure
<222> (82)

<400> 975
gaattcgcgg ccgcgtcgac ttattgtatg atttattttg gagttatatt ctgatnacag 60
tgctccctct cccaaatagc antgattttt tccccccctct aaaatgtata atctggtctc 120
aggttggatt ctttggtaca tttctctctt ctggatgcca tgcagcgcac tcgag 175

<210> 976
<211> 223
<212> DNA
<213> Homo sapiens

<400> 976
gaattcgcgg ccgcgtcgac aaattttagt tgtcccggga gttcttttgt atctgaaacc 60
tcagttgtca agcttggaaa tctgtacttt taaaatatcc tcaagcgatt ctgattacac 120
atcaggtttg gaagcacttg gcataaagaa cttccccac ccaattcaaa gaaatagtat 180
ttaagccctc ataatgtgca gtgtggttaa actgtgtctc gag 223

<210> 977
<211> 173
<212> DNA
<213> Homo sapiens

<400> 977
gaattcgcgg ccgcgtcgac gaaatgctct gctctcttct cttttccttg ctgtccctgg 60
ggctggagga gcacgggcct ccccgggagt gggcttcagc ctccctagac tcctgtctcc 120
ttccaagggc taggcctggg ggaccagaag caagagtccc aagcgtcctc gag 173

<210> 978
<211> 148
<212> DNA
<213> Homo sapiens

<400> 978
gaattcgcgg ccgcgtcgac attggtacca ggcacttaca aagctaaatt ttccgatgtt 60
cctttcacca gcatatcctc ttctcagttt attcattgat gcagaaagca ggcagctggt 120
caccgggtgt gctgacggcc aactcgag 148

<210> 979
<211> 224
<212> DNA
<213> Homo sapiens

<400> 979
gaattcgcgg ccgcgtcgac atttattaat ctaggaaagt taaatagtcc cttgaaacaa 60
aaatttttag ctgaatttat tgaaattata tttgttaaat gattacaatt tgaaaatact 120
ccgtgtttga tgttaggctg aacatgaaaa ctttttattt gaatcagatt tttttttttt 180
taagttttgt ccatcaacta aaggcacaaa cagacgacct cgag 224

<210> 980
<211> 135
<212> DNA
<213> Homo sapiens

<400> 980
gaattcgcgg ccgcgtcgac cgactttatt aaatctatga aaaatattta tattattgga 60
ttattatggg cttgctcgac atggactatg gcggatacag tcgtaactga taaagcaaca 120
acggtacaac tcgag 135

<210> 981
<211> 234
<212> DNA
<213> Homo sapiens

<400> 981
gaattcgcgg ccgcgtcgac ttctagacct gcttctttta ggcatactat attcatgcta 60
ttaagggtaa tttgtgagat gcgagtaaat ttccttttct ctctctgttc atcacttgct 120
ctcttttctc ctatactgtc caaaccaggc actgctttcg atctccgtgg ttcatttaat 180
ctcttttctg atttctcatt tccaaattct gctcacgacc cccacactct cgag 234

<210> 982
<211> 189

<212> DNA
<213> Homo sapiens

<400> 982
gaattcgcgg ccgcgtcgac ctctgacaaa tagctcagga tgagtggaag aaaatgggct 60
ttgatgtctc tcacaactgc agtgggaatt ttaggaggga caatttgcca agaagatggg 120
gcaggatttg aaaggatttg ggaggatggg gagtggtgtg cagagaaagt tgtaggaagc 180
gacctcgag 189

<210> 983
<211> 211
<212> DNA
<213> Homo sapiens

<400> 983
gaattcgcgg ccgcgtcgac ttgaattcta gacctgcctc gaaaagctgg agagctgaca 60
aggaaggttt cgagcgtttt gctggcaaag ggatttctta caacctccag gcatgcgtct 120
ttctgccctg ctggccttgg catccaaggt cactctgccc ccccattacc gctatgggat 180
gagcccccca ggctctgatg gcagactcga g 211

<210> 984
<211> 185
<212> DNA
<213> Homo sapiens

<400> 984
gaattcgcgg ccgcgtcgac cgcatctgtc gagcaatgtt gacaatctca tcaaaagtga 60
tattcccact gtgtttaatg tttttctgtt tctttctgtc tcttggtggt tccttgaggg 120
ctttgatgat cagggcagag gcagaaggca ccaccaagag acagaaagaa acagaaaaac 180
tcgag 185
<210> 985
<211> 291
<212> DNA
<213> Homo sapiens

<400> 985
gaattcgcgg ccgcgtcgac agaacctgga aaaattaacc acatgagata cgatacacta 60
ccccagatgt tgacgttggg aaatatccgt gctggcaaca aaatgattgt gatggaaacg 120
tgtgcaggct tggtgctggg tgcaatgatg gaacgaatgg gaggttttgg ctccattatt 180
cagctatacc ctggaggagg acctgttcgg gcagcaacag catgttttgg atttcccaaa 240
tctttttctca gtggtcttta cgaattccct ctctacaaag tggcactcga g 291

<210> 986
<211> 152
<212> DNA
<213> Homo sapiens

<400> 986
gaattcgcgg ccgcgtcgac gaccacccag gtaatccaca agattcttaa ttatatctgc 60
aaagattcct ttttcaaatg agaccatctt tacagattct ggtgattagg atatggctat 120
atctttttat cttttgttgg gggaatctcg ag 152

<210> 987
<211> 235
<212> DNA
<213> Homo sapiens

<400> 987
gaattcgcgg ccgcgtcgac cattataggg tgactgtaag actcaaatag agccactgcg 60
cccagcctag gaagccctaa gttttaaaaa ctttttaaag tttaaattaa gcaaagagct 120

tcatcaaaac atttaaattc ggcaaataag tgctattaca gagatgcata gatttgtttt 180
tccttttctt actttccctc tcttcctcct tccttccctt tcctcccccc tcgag 235

<210> 988
<211> 171
<212> DNA
<213> Homo sapiens

<400> 988
gaattcgcgg ccgcgtcgac ttctattaat cttaattccc ccattttgtt tctgtgatct 60
gctatgacat tacaaaaaaa attggtttat ctttcttctt tcgttttcca gtgcctttat 120
tgcatggaac agtatcccct gcacccacgc ttcaccccgg ttagtctcga g 171

<210> 989
<211> 174
<212> DNA
<213> Homo sapiens

<400> 989
gaattcgcgg ccgcgtcgac ctcaaaattt ttgtttttttg ggctccgttt tgttgagggg 60
ggctgtttgg agacccagtt gctcatggtt ttaattctga cacatttaag tggtgttttg 120
ttttgtttgt ttctgagggt tggggttgtt ctctgttgcc caagctatct cgag 174

<210> 990
<211> 207
<212> DNA
<213> Homo sapiens

<400> 990
gaattcgcgg ccgcgtcgac gcctgtccct cctccgtaat agctcagcac ctcacacatg 60
cttccgactc agcctgtgct tttgcaactt atttgcttac ctattttctt ttcccactcc 120
tccatgactt tgtggaaggc aaggacttta tctcaggatt tctctatcac cagacctagc 180
ttggggcagc aaagcaggct cctcgag 207

<210> 991
<211> 169
<212> DNA
<213> Homo sapiens

<400> 991
gaattcgcgg ccgcgtcgac attttgtgtt tttgttttca ttcatctcaa agtattttct 60
aatttccctt gtgatttctt ctttgacccc ttgattgttt agaaatctgt taatttccac 120
acatttgtaa atgttccaat ttttcttttg ttattgccag ctcctcgag 169

<210> 992
<211> 181
<212> DNA
<213> Homo sapiens

<400> 992
gaattcgcgg ccgcgtcgac cctaaaccgt cgactctagt cagaagttat ctgagcaaag 60
agaaaataaa gcctggcgta gacagtccca tagaaaatag aatccatagc cactgggctg 120
cccttcaatt tcccaattca ttccactaag tctcatgatg caaatctgtc actttctcga 180
g 181

<210> 993
<211> 355
<212> DNA
<213> Homo sapiens

<400> 993
gaattcgcgg ccgcgtcgac gtggctctgt aatgctaaca agaagtctga aaaccctgcc 60
aagcgcctgt actgcttttt tgcttctctt tttttctgtt ctcgtccggg gatcccgagc 120
tgtcctgcag ctgtaccctg agaactcaga gcagttggag ctgatcacaa cccaggccac 180
aaaggcaggc ttctccggtg gcatggtggt agactaccct aacagtgcca aagcaaagaa 240
attctacctc tgcttgtttt ctgggccttc gacctttata ccagaggggc tgagtgaaaa 300
tcaggatgaa gttgaaccca gggagtctgt gttcaccaat gagagagtcc tcgag 355

<210> 994
<211> 249
<212> DNA
<213> Homo sapiens

<400> 994
gaattcgcgg ccgcgtcgac ctcgaatggc tgggtaaaat tatttcatct ctgaaaaatc 60
aagaacaccc ttcatatacc attcttcgcc acttccctcc tccccaaacc ctaaaataat 120
acaactcagg ccgggcacgg tacaaattaa tttaacacat cttttgataa tctcatcctt 180
ggtgttggaa aagacgggaa aatccaaaag tgtctatttt gtgcccaaat gctcaagtta 240
atactcgag 249

<210> 995
<211> 346
<212> DNA
<213> Homo sapiens

<400> 995
gaattcgcgg ccgcgtcgac cttttctgct ctgttttgtt ttccctgcct gttgcgtgca 60
agggaagtgc ttgtaaagtt ctgtgctacg agatttttaa aataaaaatc gcttcgcagc 120
aggttctcac aaaataactg gtgctagctc aagaaatcat catctgacca tcagaaatct 180
tgactaaagg tgttgcatgg atttggggt ctttcggttt ttggttttgg gtctggcttt 240
tagcagggcc aatgtttccc acaccccggc ttcatgggta ctgctttgcc ttctcaccaa 300
ggtgacgatg gtgtgcgtgg aaagagatga taccccaccc ctcgag 346

<210> 996
<211> 147
<212> DNA
<213> Homo sapiens

<400> 996
gaattcgcgg ccgcgtcgac gctttgatgt atagattaca ggtttcatca accttccaaa 60
gctttcagcc attgtttctt caagtatttt gttttcctac tcctttctct ctttcctctt 120
ctaatgctca ttacccgtat gctcgag 147

<210> 997
<211> 329
<212> DNA
<213> Homo sapiens

<400> 997
gaattcgcgg ccgcgtcgac aaattattaa gggttaagta aggagtttta aataccaata 60
aaatcttatt tataacacca aacctcagaa gtccttcctc ttggcaatag ttttattgta 120
ttggtttaat ctgatattta atcttctgta ttatagtaag ctgaaaccaa aattgagaca 180
tgattgtttt atgtttgttg ctattatttt tgaatttttt tttttttttt ttaagacaag 240
gtcttgctat gttgcccaac tggcctcaaa ctcctgagct caaagtgatc ctcccacatg 300
ctcctcccac atcacatcac agtctcgag 329

<210> 998
<211> 293
<212> DNA
<213> Homo sapiens

<400> 998
gaattcgcgg ccgcgtcgac atattttcta ataaatactt gagcggtttt tgtctggcag 60
gcttccaaat ttgccaaaat taagcgttca gtattttcaa cacatacgct ttttactggt 120
ttatactgaa ctatctgatg agaattcctg tgttcccaaa gcaactgatg tttacaggtc 180
ttgtgtttct cctcctcctt tctaaggatg agggaatcca caacagactt tctctagaaa 240
acactaatga tggacaactt tttggtgtca tcaatgagtt ggctactctc gag 293

<210> 999
<211> 158
<212> DNA
<213> Homo sapiens

<400> 999
gaattcgcgg ccgcgtcgac cttattcgct gaactcaggc atttccactt gcatgtccca 60
cagttgagtc aggacccata atttcttcct gctttcccat gctattcctt tccttattga 120
caaatgccat catcttttct ctcactgccg cactcgag 158

<210> 1000
<211> 152
<212> DNA
<213> Homo sapiens

<400> 1000
gaattcgcgg ccgcgtcgac tttttaaatg aggttattta aatgttaaag aaagttttag 60
tggtcgcatt attggggtta tcttcaactg catttgcagg aggttttcaa attaaagtgg 120
gtgcgagttt aattgaccca acagcactcg ag 152

<210> 1001
<211> 196
<212> DNA
<213> Homo sapiens

<400> 1001
gtgactctca tctattaacc taagccagaa atcaaggagt cattttagat acttccttcc 60
actccttatc atctggtcag ttcctaatga aatgatggtc attttcctaa tttttctact 120
tgtctctaaa tttactgcat atgattccat tcccttgtat actgctagag tgaatagtca 180
cctcacgaac ctcgag 196

<210> 1002
<211> 311
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (280)

<400> 1002
gaattcgcgg ccgcgtcgac aactttttca gcaactaaaa aagccacagg agttgaactg 60
ctaggattct gactatgctg tggtggctag tgctcctact cctacctaca ttaaaatctg 120
ttttttgttc tcttgtaact agcctttacc ttcctaacac agaggatctg tcactgtggc 180
tctggcccaa acctgacctt cactctggaa cgagaacaga ggtttctacc cacaccgtcc 240
cctcgaagcc ggggacagcc tcaccttgct ggcctctcgn tggagcagtg ccctcaccaa 300
ctgtcctcga g 311

<210> 1003
<211> 208
<212> DNA
<213> Homo sapiens

<400> 1003
gaattcgcgg ccgcgtcgac gaggaatggt agtattctct tatgaaatag taagtttgtt 60
atcatttgca gttttctgtt tatggtctgt cagagcagtg acttcagagg ggcaacctgg 120
acagttgact gctcccatca ccaaaaccaa actacacaca cacacacgtt cccaaactgc 180
accaaggcac cccaaagcac cactcgag 208

<210> 1004
<211> 223
<212> DNA
<213> Homo sapiens

<400> 1004
gaattcgcgg ccgcgtcgac agtttttggg ctgtgaattt aatgttttag gaagttccca 60
tttaagattc tttaaaatgg tttcttctgt tgtgctttta ttcctttata ttaaaatctt 120
tgatttatct aaaattactt ttgtgaaaga gtggtatagt gagaatagct ttttagagaa 180
aaccaaaaca aatggtttga atatttgtcc caacactctc gag 223

<210> 1005
<211> 166
<212> DNA
<213> Homo sapiens

<400> 1005
gaattcgcgg ccgcgtcgac tgggcattac tatgttagtt ggaataactg gactctttta 60
cactcaacta attggcatca tcacagatac aacatctatt gaaaagatgt caaactgttg 120
tgaagatata tcgaggcccc gaaagccatg gcagcagcac ctcgag 166

<210> 1006
<211> 175
<212> DNA
<213> Homo sapiens

<400> 1006
gaattcgcgg ccgcgtcgac gaacaacgtg ggctttcatg atgtatgtac ctttctcttt 60
cttttgttgc atgtggggga cagtattgct tcaactaatg tttattactt taaaacacga 120
aaggtatgag gaagtaaacc aaaacagtcc acagtcttca aacaggaccc tcgag 175

<210> 1007
<211> 191
<212> DNA
<213> Homo sapiens

<400> 1007
gaattcgcgg ccgcgtcgac gggaaaacaa agaaacaaac tataaaagaa agcaaagaaa 60
atctttgtga tttggggtca gagataggac tccaaaaaca taagaaaaaa actggtaaac 120
tgaataaatt gataaactgg acttcacaaa aattaaatac atttactatg aaaaaaacag 180
tgctactcga g 191

<210> 1008
<211> 190
<212> DNA
<213> Homo sapiens

<400> 1008
gaattcgcgg ccgcgtcgac ccaggatttc aactatactc atccacagac ttttcccatt 60
gggtagaaat tgaaacagaa ctgacagaac caggatttga ataccagcct tttgactcca 120
aatcagggac aagatgcagt tttgtatgtt aattattttt attggttttg atattgtggc 180
cccactcgag 190

<210> 1009

<211> 245
<212> DNA
<213> Homo sapiens

<400> 1009
gaattcgcgg ccgcgtcgac ttcaatctct agaggtttgg cagtttcttt ttatcaaatt 60
cttcccttaa taagctgcag cctgtgaatc tcaaaataat ggaagtttta aaaacagaaa 120
gaaaaagatt tttattttta ttttttttatt tttattttt taagacaggg tcttgctctg 180
ttgcccagga tggaatgcag tggcacaatc gcggctcgct gcggcctcaa tctctggggc 240
tcgag 245

<210> 1010
<211> 183
<212> DNA
<213> Homo sapiens

<400> 1010
gaattcgcgg ccgcgtcgac tgaagttctg aaaaaaattt taggagattc ctgctttcta 60
gggtgctgaa gaaagactac ttaaaatcac tatttaatag tacagtaaat aggagatacc 120
tgtattttga actttgcata aaattgatgt ttctttatgg ttaaatttag attaatactc 180
gag 183

<210> 1011
<211> 141
<212> DNA
<213> Homo sapiens

<400> 1011
gaattcgcgg ccgcgtcgac ccagactctc atatccatgg ctttcttgtt ttataaaata 60
gtatacttac tgtgccttaa acagaacttg gatcccctct atttccacta cattcctcct 120
tgtcctcgta aggacctcga g 141

<210> 1012
<211> 162
<212> DNA
<213> Homo sapiens

<400> 1012
gaattcgcgg ccgcgtcgac cttgtatgtg tcatttgagt ggtttccaga ttggagcgag 60
gttattctga tctaaatgaa cagcattttt ttccttagcc tctgtttgcc actctgggta 120
tctctcctat gggcaaagcc attagaaatg catccactcg ag 162

<210> 1013
<211> 217
<212> DNA
<213> Homo sapiens

<400> 1013
gaattcgcgg ccgcgtcgac atctttttcc tgtggctgct tcaaaaactt tgtctttgag 60
caatattact attatgtgtc tagatatagt ttcttttttt atccagcttg ggattcttag 120
aaattcttca ttttgtagtt tgatgtcttt tgaaagtttt ggaaaattcc cagtcagaat 180
atcctcagat catgtttcta tccccaattc tctcgag 217

<210> 1014
<211> 265
<212> DNA
<213> Homo sapiens

<400> 1014
gaattcgcgg ccgcgtcgac actgatatac gatagacagc acatatataa aacgtaaaat 60

ttgataagtt ttggcatatg tatgcacatg caaaaccatc accataatca agaccgataa 120
catacccatc atccataaaa gtctcttcct gtccctttgt attcccttat taagaaacta 180
ctaaatgttt aagtatttgt gctattttcc attcctatca gcagtacatg ataattctcc 240
ttgttccata tcgtctgagc tcgag 265

<210> 1015
<211> 127
<212> DNA
<213> Homo sapiens

<400> 1015
gaattcgcgg ccgcgtcgac caaggacttt ccccattgca agtcttcagc agacgagcca 60
cacagttcca agtacatctt aagaagcaca ctctagatgc agaatgaaga ttcactattt 120
gctcgag 127

<210> 1016
<211> 231
<212> DNA
<213> Homo sapiens

<400> 1016
gaattcgcgg ccgcgtcgac gcctggctag ttttaaggtt tttaaacagg cattgagaca 60
tctataatgg tcctgctgct tttggatctg actcaaactc agccctgcct tctatttttc 120
tttctttttt tttttttttt gaggcagtct tactgtatgg ccgaggctgg agtgcagtgg 180
catgatcttg actcaatgca acctgtcttt cgggttcaag tgattctcga g 231

<210> 1017
<211> 209
<212> DNA
<213> Homo sapiens

<400> 1017
gaattcgcgg ccgcgtcgac agcttaatcc tttctagctt ctgatttaaa gtgagagaca 60
tgagactctt cctttcactt gtatacttag gggccattgt cgggttattc attagcttaa 120
tttcaatatt gttgtgtctc aggagtagga atatccaaag agagggagaa agacttgggg 180
agcagctggt cagtggaaca actctcgag 209

<210> 1018
<211> 205
<212> DNA
<213> Homo sapiens

<400> 1018
gaattcgcgg ccgcgtcgac ataacccttt aatggctccc tatgccccag gattaagtcc 60
aaacaccatg gtgtggcatg tgagaaagtc ttcctttgtc tggcttctgc agctcttcag 120
cttcatctct tgccactctg tcatctctgt gtccccagtg catgtcccat ggacacagtg 180
tgcagtcata cccccaattc tcgag 205

<210> 1019
<211> 218
<212> DNA
<213> Homo sapiens

<400> 1019
gaattcgcgg ccgcgtcgac cttcatcccc accttccttc tcatctcttc tacagtttga 60
tgctgctggg caatttcatc cacttcctag gcttcagttc tcaaccatct actgatgatg 120
actcccaaat gtttatccct gccctgacta cctaccctgt atgtctttct gaatataacg 180
ctcttaatcc caactgttta ttatactcat ctctcgag 218

<210> 1020

<211> 259
<212> DNA
<213> Homo sapiens

<400> 1020
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc cattcaaccc 60
ccctcatcac actctcacac tttctgagct gagatccaca gtaaggaata cactgtttca 120
tcttcgccct aggcacatac tctcatccgc agctgaaatg cagtttcaga atgtgaatcc 180
ttatttcacg ttctgtgtgg tgatgttttc tgttttctct cttgcctcct cctcagcatt 240
ggctacacac ccactcgag 259

<210> 1021
<211> 165
<212> DNA
<213> Homo sapiens

<400> 1021
gaattcgcgg ccgcgtcgac gcccatagga gttgaaaaat cctgctgctc tcagctatat 60
ttttttctcc attatttata aatgtttgct tttaaactga ttttattttc cattctcccc 120
tggagttggg ccaggggaga gtggggtggg aagacagatc tcgag 165

<210> 1022
<211> 195
<212> DNA
<213> Homo sapiens

<400> 1022
gaattcgcgg ccgcgtcgac ttttaagttc tagagatcgg gtctcgttat gttgcctagg 60
ttgattttga actcctgggt ctgcctcagt cttccaaaat gttgggatta caggcatgag 120
ccaccttgcc cttcccgaaa ctgccatatt gttttccgta atagctgcat catcttacat 180
gcccctgtgc tcgag 195

<210> 1023
<211> 143
<212> DNA
<213> Homo sapiens

<400> 1023
gaattcgcgg ccgcgtcgac aatcattcca acaatatttc tgtgattgtc tgtaacgaac 60
tactttttct gatttttgat cagtgatctt tgactataat agaaaagaaa gtttaaatgt 120
tatggaaggt gctggggctc gag 143

<210> 1024
<211> 166
<212> DNA
<213> Homo sapiens

<400> 1024
gaattcgcgg ccgcgtcgac caggaaagca ttgaattaaa ttatacagta ccatttctcc 60
aggtattgag ctaaagagaa tggagctaaa attgccctgc tgtcttgtca ttaccctatt 120
tctaattctg tcattttctt tccaaaaatc tcacgcatat ctcgag 166

<210> 1025
<211> 164
<212> DNA
<213> Homo sapiens

<400> 1025
gaattcgcgg ccgcgtcgac attggaaata tcatccagac agaaagtcag caaacatctt 60
acttaatctg cagtacagac caaatggacc taatagacat ttacagaaca ttttatccaa 120

tggctgcaga gtacacattc ttcagctcat ggatcattct cgag 164

<210> 1026
<211> 139
<212> DNA
<213> Homo sapiens

<400> 1026
gaattcgcgg ccgcgtcgac tgacattatt atcaattaac attttacttc cttctagctc 60
tctacatttt cattttctca tctcataaat ctcattcctt atgatttttt ggtggggatg 120
tgttacttac ggactcgag 139

<210> 1027
<211> 174
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (42)

<220>
<221> unsure
<222> (56)..(57)

<220>
<221> unsure
<222> (61)

<220>
<221> unsure
<222> (64)

<400> 1027
gaattcgcgg ccgcgtcgac caaataccct ggttggcttg tnacaagaaa gaattnnggc 60
ntanctcaga tacaaaagtg gaaaaagaaa cggctataat ccatggggaa gactttctat 120
ttcttagtct gtctcctgtc ccaaatagct cagctctcct cacccaaact cgag 174

<210> 1028
<211> 169
<212> DNA
<213> Homo sapiens

<400> 1028
gaattcgcgg ccgcgtcgac gtatatgtta attgagacaa gcaggttgta aaatgacctt 60
ctcttcccat tcttctcatg ttgtcctcaa aaaagatata cttcttttct ttctttttc 120
ttttctttt tttgagatag acagactctc tctgccaccc agactcgag 169

<210> 1029
<211> 265
<212> DNA
<213> Homo sapiens

<400> 1029
gaattcgcgg ccgcgtcgac gagtctttag agttttctag gtgaacgatc atatcatcca 60
tcagcaaaca gtgagtttga cttcctcctt aatgatttgg atgcccttta tttctttctc 120
ttgtctgatt gctctggcta ggacttccag tactatgttg aagaggagtg gtgacagtgg 180
gcatccttgt ctagttccag ttctcagagg gaatgctttc aacttttccc cattcagtat 240
tttgttggct gcaggccatc tcgag 265

<210> 1030
<211> 223
<212> DNA
<213> Homo sapiens

<400> 1030
gaattcgcgg ccgcgtcgac ctgagtcgtc taaaattctg cattacagtt gcgattattt 60
tcctttgata ttacaatttt gatttatgtt ttttataaca cttgtatttt tccttattac 120
cacatcaata tatattcatt gtggaaaact atgtaaaaat gcagaaaaga atacattaaa 180
aaataaaaac tcctgcattt tactccttac tgatactctc gag 223

<210> 1031
<211> 135
<212> DNA
<213> Homo sapiens

<400> 1031
gaattcgcgg cgcgtcgaca aagcttgtga gctcaccaaa caaggatttc agtgtagatt 60
ttgtctttct tgaacttaaa gaaacaaatg acaaagtttg aatggaaaag cctgctgttg 120
ttccccacgc tcgag 135

<210> 1032
<211> 186
<212> DNA
<213> Homo sapiens

<400> 1032
gaattcgcgg ccgcgtcgac cccggctttt cttggagccc aagagttttc tgagtgtgca 60
gagaaccctt ctatcatgaa gactttattt agagtcgggc tagggttgtt actgccttta 120
ccaggcttcg tattcccttc ctctgtgtct ggcctacctt ctacagtttc tggccactta 180
ctcgag 186

<210> 1033
<211> 165
<212> DNA
<213> Homo sapiens

<400> 1033
gaattcgcgg ccgcgtcgac gaaaaaaaaa gtgccttttg ctgctttaaa gaattggggt 60
atatggtatg aagcagccat gtacttgtat tttcctggtc tttcctgggc actcttctct 120
cttggcagat gttttcttaa agtgaacaca ccagaagcgc tcgag 165

<210> 1034
<211> 259
<212> DNA
<213> Homo sapiens

<400> 1034
gaattcgcgg ccgcgtcgac ctttgatcca tggaaacatt ttataaaata atttccaaaa 60
taatttcctg gaaatctgga attgtagtct gtagcaaatt gggattattt attaatttaa 120
tttaatttaa tttatgagat cagagtcttg gtatgttgcg ttggctggtc tcgaactcct 180
aggcttgagt gatccttctg cctcagcctc tctagtggct ggaactgtaa gtgcacacca 240
ccatggcaca aatctcgag 259

<210> 1035
<211> 205
<212> DNA
<213> Homo sapiens

<400> 1035

gaattcgcgg ccgcgtcgac attatttgct gtccttttga attcatttgt ctttttcaga 60
ttgtggggca tttgcctggt aatactaaca ataatcaata atatcagtca gggataaaga 120
cacagataaa ttgcatggaa aaaggatggt gggggatcc atttctggct gtgtatttcg 180
ctgccttgtt gtccctatcc tcgag 205

<210> 1036
<211> 171
<212> DNA
<213> Homo sapiens

<400> 1036
gaattcgcgg ccgcgtcgac ctgtttgtgg tgaggtgtaa ttatgtgtgt ttttcctagc 60
ttagtgtgtg cgttctttct ttttgtttct gagaatgctg tgttgagggg gtttttggag 120
aaaacggtgg ggttgggagg ttgtagtact tcaaacaaag gtgaactcga g 171

<210> 1037
<211> 251
<212> DNA
<213> Homo sapiens

<400> 1037
gaattcgcgg ccgcgtcgac ccgttttccc acttcaacag ttacttcagg tttaaagtcc 60
tttttatctc tgtaacctgg tgacataaag ccaggaacat tttcccacaa tccaccttag 120
cataaaacat aacaatttca ttcatcagtt gttattgtgt agaaccaatg aacatgttgg 180
tcatttgtct gtatttagtc tttatttgta ttgctatatt tgagcattcc aagattgcag 240
agggtctcga g 251

<210> 1038
<211> 159
<212> DNA
<213> Homo sapiens

<400> 1038
gaattcgcgg ccgcgtcgac cccatatatc acaagcaata tgggaagaat aaaaaaagta 60
aacctattat tattatattt gagatatggt ctctctcacc caggctggaa tgcagtggtg 120
caatcacagc tcactgcagc ctcaatctcc aagctcgag 159

<210> 1039
<211> 188
<212> DNA
<213> Homo sapiens

<400> 1039
gaattcgcgg ccgcgtcgac cttaaatttt tgcatcatta tttgcatatc tttgagacaa 60
caaaaatttg cctttttttta gttttttttt tgttgttggg atctaaaaga ttcttatatg 120
taaatacaaa tattacagag aaagtgaata tgatagccaa aatgtggatt atgaggatac 180
cactcgag 188

<210> 1040
<211> 207
<212> DNA
<213> Homo sapiens

<400> 1040
gaattcgcgg ccgcgtcgac taaataaata aattaattaa ttaataaagt aataataata 60
ataaagccca gcctggttgg tgtgctgtag gtagatattc atgttcaagg ctctgtctct 120
tcctgacctc cgaactgttg tcataaaatc attcattcat acactaaacc atttgatatg 180
tatttactga atcccctact cctcgag 207

<210> 1041

<211> 177
<212> DNA
<213> Homo sapiens

<400> 1041
gaattcgcgg ccgcgtcgac acccctcacc cccaacccct caaccttata ttaccttgaa 60
attccaccga tgctatatcc gggtttgttt gcaactttca agtgggtatt atttccgtta 120
gctttggagg aatattcttg tgatcacgca atcaaccatc atgatagaaa cctcgag 177

<210> 1042
<211> 172
<212> DNA
<213> Homo sapiens

<400> 1042
gaattcgcgg ccgcgtcgac ccactttttg gagagtagca aatctagctt ttttgtacag 60
acttagaaat tatctaaaga tttcatcttt ttacctcata tttcttagga atttaatggt 120
tatatgttgt ctttttttcc tatgtctttt ggctcaagca acgtcgctcg ag 172

<210> 1043
<211> 378
<212> DNA
<213> Homo sapiens

<400> 1043
gaattcgcgg ccgcgtcgac cagtcaggcg ctgtggctca cgcctgtgat cccagcactt 60
tgggaggccg aggtgggcag atcgcctggg gtcgggagtt tgagaccagc ctgaccgaca 120
tggagaaacc catctctgct aaaaatgcaa aattggccgg gtgtggtggc atgtgcctgt 180
ggtcccggct actcgggagg ctgaggcggg aggatcgctt gaacctgggg ggcggaggtt 240
gaggtgggca gatcgcctgg ggtcgggagt ttgagaccag cctgaccgac atggagaaac 300
ccatctctgc taaaaatgca aaattggccg ggtgtggtgg catgtgcctg tggtcccggc 360
tactagggag tgctcgag 378

<210> 1044
<211> 437
<212> DNA
<213> Homo sapiens

<400> 1044
gaattcgcgg ccgcgtcgac cgttcgattg agttggggtg gaactctggc gtcttctcag 60
gtgggtaaag gaaccagcgc ttacgaccgt agatcacttc tgagtacccg ggtccatgcc 120
agtggaaggg cacccccgag ccagctcctg cgattccaaa gctgtaagct ggagcggttc 180
ccagcaggcc aaatgggggt ggggagtagt gccgaaagag agaggcccac tcggtgaagt 240
tgttgtcccc gaagaagtac agggtgtcat tgcccaggga ggtggggtcc tgggggtgca 300
gcagctgctc cacatactcc tggaagggca agtccacttt gtggtaggag taggtgttgg 360
cggtgctcag ccggaccact ctgtccccaa acgaagccag caacctgtcg cgggagcaca 420
gggcccggaa cctcgag 437

<210> 1045
<211> 420
<212> DNA
<213> Homo sapiens

<400> 1045
gaattcgcgg ccgcgtcgac gcggggattc ttggcgccat tgtgtgccgt gggcgtctcg 60
tacaccgcgt agcccaggcg cagtcggcag taggggtcca tgcgggtcat gccgtaattc 120
ttggccaact ttgcctgtac caccgtgatg ttcagtcggc ccacggtgcc cactgcgcct 180
ccgtactgca gctgctgggc cgcctgggcg tccagctgga cctgccgctg ctgctgtgtg 240
ggcgtgatgc ggaggaagtc ctgcgggagc tcaccgatgt acaccggccc gcgctgagtg 300
ctgacggtgg tcgccatggt gctgcggcgg cccccgtggc tcgccgaccc gacagtgacg 360

cgccgggcga cctcctgcgc ccccgccgga gcctgcgacg gagacagttg tcacctcgag 420

<210> 1046
<211> 424
<212> DNA
<213> Homo sapiens

<400> 1046
gaattcgcgg ccgcgtcgac tgtcgctcta agtggtattt taaggatgct gactgcgtgc 60
cggcatagtc acagtgcgga cacttgtagg gtttctcacc tgaggaggat ggcgaggagg 120
ggtgcgggct gtcctcctgg gcactcccgg tctgggagag gccgcctccg accccgctct 180
cctcggtgac gttagaggag cccggcgtgg tggagcggct caccgactgg gactcctggt 240
cactgcccga gccacgccgc tcatccaggc ccacgtgcag cccatcctcc tcgcccttgc 300
ggtcccgctt gtggacacgg gagtgcacga ccacctggtg gtaagtgcgg aacacccggc 360
cgcagtcggg gcactcggtg ggcttctcct tcatgttccc aggaccctgc aggttatact 420
cgag 424

<210> 1047
<211> 477
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (251)

<400> 1047
gaattcgcgg ccgcgtcgac gggggaaaca agcctcccgg gtcttgcagt agccccacga 60
ggagcccagg atggctgggg caggatggag cagcagagat gaagggagtg ggtgggttcc 120
ctgctcacag gtgaggtgag ctatgctggg ctgggtgatg aaccagatgg gaggaggtgg 180
tgagacaggg ggagagccag gtgccaggga tagctgctcc ctgttctggc accagcaatg 240
agaaaataaa nacaccacag agtgtggcag caatcgctgg gggagggaca cacttggtgg 300
tgcgggcagg tggggcagtg ggggttcaag tgttcaggtt ggacacacac cacctttgag 360
atgactacga aagacccaag ggtgggcgtt aaataggggg ctggatacat aggtctggag 420
ctcagcagga cgcgccagga aggaaatggg agatgataga atgggaattt tctcgag 477

<210> 1048
<211> 192
<212> DNA
<213> Homo sapiens

<400> 1048
gaattcgcgg ccgcgtcgac catgaaccca atccggagaa ggttccagcg ggtcccccac 60
cctcccctcc tcctcctact tctcctcttg acagcgagga caggaggggg acaaggggac 120
acctgggcag acccgccggc tctcccccca ccccaccccg cccctcacat catactccaa 180
ccaaacctcg ag 192

<210> 1049
<211> 366
<212> DNA
<213> Homo sapiens

<400> 1049
gaattcgcgg ccgcgtcgac gttttctctt tcgatatata tgtctctgtt tttctctgtt 60
tctacctcct tcctctccca ctgtttcttt ctgcttttat ctttctctct ccttctctct 120
cttccgtgca tctccagtgc catgggggcg cctgtgctgg gggcgccagg agagccacct 180
ggagccacgc ctgtgtcccc ggctttgggg agggtcggtg ggttggtgag tgcacggttg 240
gcgctgctcc acgcgccccg ggcgcacgca ctcccggtg ctcggatttg gctggcagta 300
ccctgccccg ccccgccggt cgccgccccc gccaccagcg atcgcttggg agagggttac 360
ctcgag 366

<210> 1050
<211> 535
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (104)

<400> 1050
gaattcgcgg ccgcgtcgac atccccgaac cccgctttcc ggcccgcggc gaccgccggc 60
aactgttgtg gctgccgcat tgctcccgcc gggctgtagc tgancgcgga gcccgtgggg 120
gccggtgagt ttgagttcct gagatctagt tggtgagaga catgatgttc taccggttgc 180
tgtcgattgt tggaagacaa agagccagcc caggatggca gaactggtcc tctgcaagaa 240
acagcgcatc agctgccgag gcgcgttcca tggccctgcc cacccaggca caggtggtcg 300
tctgtggagg tggaatcacg ggcacttctg tggcccatca ccaatccaaa atggggtgga 360
aggatattgt ccttttggag cagggcaggc tggctgctgg ctctaccagg ttctgtgctg 420
gcatcctgag cactgccagg cacttgacca ttgagcagaa gatggcagac tactcaaaca 480
aactctacca tcagttagag caagaaacag ggatccgaac agggtaacac tcgag 535

<210> 1051
<211> 303
<212> DNA
<213> Homo sapiens

<400> 1051
gaattcgcgg ccgcgtcgac cacagacact gtggtgaact tccttatccg cgtggcctgt 60
caggttaatg acaacaccaa cacagcgggg tcccctgggg aggtgctctc tcgccggtgt 120
gtgaaccttc tgaagactgc gttgcggcca gacatgtggc ccaagtccga actcaagctg 180
cagtggttcg acaagctgct gatgactgtg gagcagccaa accaagtgaa ctatgggaat 240
atctgcacgg gcctagaagt gctgagcttc ctgctaactg tcctccagtc cccaggcctc 300
gag 303

<210> 1052
<211> 533
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (286)

<400> 1052
gaattcgcgg ccgcgtcgac tgatgaagaa gcacaaggct gccgtggctc aggcttcccg 60
ggacctggct cagataaatg atctccaagc tcagctagaa gaagccaaca aagagaagca 120
ggagctgcag gagaagctac aagccctcca gagccaggtg gagttcctgg agcagtccat 180
ggtggacaag tccctggtga gcaggcagga agctaagata cgggagctgg agacacgcct 240
ggagtttgaa aggacgccaa gtgaaacggc tggagagcct ggctanccgt ctcaaggaaa 300
acatggagaa gctgactgag gagcgggatc agcgcattgc agccgagaac cgggagaagg 360
aacagaacaa gcggctacag aggcagctcc gggacaccaa ggaggagatg ggcgagcttg 420
ccaggaagga ggccgaggcg agccgcaaga agcacgaact ggagatggat ctagaaagcc 480
tggagggtgc taaccagagc ctgcaggctg acctaaagtt ggcattcctc gag 533

<210> 1053
<211> 531
<212> DNA
<213> Homo sapiens

<220>
<221> unsure

<222> (511)

<400> 1053
gaattcgcgg ccgcgtcgac cgcggccgcg tcgactcccc aaggaaaatc ttttcagctt 60
ccagacagca accacaacta tgcaagccat ctcggtgttc aggggctacg cggagaggaa 120
gcgccggaaa cgggagaatg attccgcgtc tgtaatccag aggaacttcc gcaaacacct 180
gcgcatggtc ggcagccgga gggtgaaggc ccagacgttc gctgagcggc gcgagcggag 240
cttcagccgg tcctggagcg accccacccc catgaaagcc gacacttccc acgactcccg 300
agacagcagt gacctgcaga gctcccactg cacgctggac gaggccttcg aggacctgga 360
ctgggacact gagaagggcc tggaggctgt ggcctgcgac accgaaggct tcgtgccacc 420
aaaggtcatg ctcatttcct ccaaggtgcc caaggctgag tacatcccca ctatcatccg 480
ccgggatgac ccctccatca tccccatcct nctacgacca tgaagctcga g 531

<210> 1054
<211> 454
<212> DNA
<213> Homo sapiens

<400> 1054
gaattcgcgg ccgcgtcgac ggcgcttgcc tgtaatccca gctcctcagg gggctgagac 60
aggagaatcg cttgaacctg ggaggtggag gctgcagtga gctgagatcg cggcactgca 120
ccccagcctg ggctacagag tgagacttgg tctcaaaaaa aaaaacaaaa acaaataaac 180
aaacaaaaaa caacaacaaa aaacaccctg ggtactattc catcaaatga aggtactgtg 240
agttatctaa tcagttccct gttgaggggc attttgattg tttcatgtcc tttactctta 300
ggaacagtga tgcagtgaat atcctggtgg atatttaata gacgttctct gagttgacct 360
tgcctggatg gagatgcatg gataatagac gctctgtgtt tctgctgccc attatactcc 420
aaacacttgc agccctgtcg tcagtgcgct cgag 454

<210> 1055
<211> 435
<212> DNA
<213> Homo sapiens

<400> 1055
gaattcgcgg ccgcgtcgac cgcccccgcc cccgccccgc tcccgagggg tcccagcctg 60
gcgggtgaaa gggcactggc ggttccccgt gagccgatgt ctccatgcgc ggctcctggg 120
ggtcctccct tttgcgcagg cgaggaaacg ggcttggggt tcaggaagca gccccaagcc 180
cgccttggga ggtgacatca ccagggctta ccttccacaa acacatttaa caacagacaa 240
aacgtgaacg aggagaaact ggagtgagcg tttgaaccag ccacagtctc tacgtgtcat 300
ccaaggagcc cggcacagac cccgtgtcac ccccatgtca cccgcagacc ccgcgtcacc 360
catagatacg cacaccccgt gtcacccca tgtcacccgc gtgtcaccca cagatacacg 420
gcccccgtac tcgag 435

<210> 1056
<211> 540
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (20)

<220>
<221> unsure
<222> (134)..(135)

<400> 1056
gaattcgcgg ccgcgtcgan tgggcgtggt ggcatgcgtc tgtaatctcg gctactcggg 60
aggctgagac aggagaattg cttgtacccg ggaggcagag gttgcagtga gtgagatcaa 120
gctgctgcac tccnncctgg gcgagagagc gagactttgc ctcaaaaaac aacaaaacaa 180

acaaacacta tggtttctgt cttggtaatt ctctctctca aatcacttgc tctggaggaa 240
tcaagctatc atgttgagaa cagcctaatt cagaggcctt catagtgagg aactgaaacc 300
tcctaccaat aaccatgtga tgatttgtag gcaaatcctt caattcaaat caagctttca 360
gatgactact atcttagcca gtaccttacc tgcaaactca agagggaccc taagccagaa 420
tcaaacaact atgcctctga ttcctgaccc tcggaactgt gaaataacat ttgttgtttt 480
aaatcgctaa gtttaagggt ttgttacgca ctgatagata atacaggacc actactcgag 540

<210> 1057
<211> 703
<212> DNA
<213> Homo sapiens

<400> 1057
gaattcgcgg ccgcgtcgac agggaacata tctttttttc agagcctctg tgtgctgggt 60
tactgtatac ttcccttgac agtagcaatg ctgatttgcc ggctggtact tttggctgat 120
ccaggacctg taaacttcat ggttcggctt tttgtggtga ttgtgatgtt tgcctggtct 180
atagttgcct ccacagcttt ccttgctgat agccagcctc caaaccgcag agccctagct 240
gtttatcctg ttttcctgtt ttactttgtc atcagttgga tgattctcac ctttactcct 300
cagtaaatca ggaatgggaa attaaaaacc agtgaattga aagcacatct gaaagatgca 360
attcaccatg gagctttgtc tctggccctt atttgtctaa ttttggaggt atttgataac 420
tgagtaggtg aggagattaa aagggagcca tatagcactg tcacccctta tttgaggaac 480
tgatgtttga aaggctgttc ttttctctct taatgtcatt tctttaaaaa tacatgtgca 540
tactacacac agtatataat gcctccttaa ggcatgatgg agtcaccgtg gtccatttgg 600
gtgacaacca gtgacttggg aagcacatag atacatctta caagttgaat agagttgata 660
actattttca gttttgagaa taccagttca ggcagagctc gag 703

<210> 1058
<211> 263
<212> DNA
<213> Homo sapiens

<400> 1058
gaattcgcgg ccgcgtcgac ccctgtctca aaacaaaaaa ccttccttta atcttacatc 60
agatgtgtgg gtttttaaaa ttatttatgt gttttattta ttttatttta ttgagacgga 120
gtcttgctct gttgcctggg ctggagggca gtggcatgat ctcggctcac tgcaacctct 180
gcctcccatg ttcgagcggt tctcctgcct cagcctccca agtagctggg attacaggtg 240
cccgccacca caccgaactc gag 263

<210> 1059
<211> 316
<212> DNA
<213> Homo sapiens

<400> 1059
gaattcgcgg ccgcgtcgac ccagcatctc tcaacagtct cagctcgctc attcttaaga 60
tgtcagctta aatgttatct cttcagaggc ccccatgttc tctcttgcaa tggcctgttc 120
tattccatta ggggactttg ccatatatgg catatttgtg taaaagttcc atgagagcag 180
aggttttgtt tcctttatcc ctccatacac agcaactgga acaatacaat gcatagagta 240
aacatgcaac agataacctg aaggaatgct gtttcatgcc ttcattcctt cctatacatt 300
attgctcccc ctcgag 316

<210> 1060
<211> 393
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (27)..(29)

<400> 1060
gaattcgcgg ccgcgtcgac ttgaatnnna gacatgcctg ctcacccccc actgcactaa 60
cctaaataat ctctgattat tttctttttc tcttgctact accaaattct gttcttgagt 120
gaggaagcag cttggttaaa aaacaaaagc cctgatatgt atatatattt tttttcctga 180
agaataccat caggatgaag gctatgatta atacacataa ttgctacaaa tggcagctaa 240
ctgcagaaaa ccacctccca gctgttggag gaaggaaatt gctgacagcc actccccatt 300
gggtggctac caaaagagag gagctcacag gagcaggaga gaatacacat ctccatccca 360
cgtgacccat agagatgacc cattaggctc gag 393

<210> 1061
<211> 247
<212> DNA
<213> Homo sapiens

<400> 1061
gaattcgcgg ccgcgtcgac gctaaacgga ctgtttttat tgtagtaaaa gagctttgta 60
aattaaccaa ttaattttta agccctaaat aagcttttct gtgcatttga gatctagaag 120
atacagcttt attaatctga tctaaatttc tgaagggggc ttgtatttct gtaatcagtg 180
atatcagtag tcactgttgg gcaaagggca ttttttaaaa gaaatgcaca tagcaggctt 240
tctcgag 247

<210> 1062
<211> 240
<212> DNA
<213> Homo sapiens

<400> 1062
gaattcgcgg ccgcgtcgac aaaatagccc tggaagtgta gccttcagct cctctaccca 60
cagctgacta aaaacattgg caagtttgtc acctaggctg ttgtcacccg aatataaatg 120
agacccattt ctggccagaa aacttcagct atcacagtct acattgtgat gagttgcttg 180
gctgtttttc caagcaaaag aaggtgcatg gtctcatgta tttcccccca acacctcgag 240

<210> 1063
<211> 429
<212> DNA
<213> Homo sapiens

<400> 1063
gaattcgcgg ccgcgtcgac gtgggagcgg aggtagggga gctcagaggc aggaagcatt 60
ttcggcaaac cactgcagag taggcatgtc atccctccca ccagcactgg gggagcccaa 120
tgcccaccac ggacaagggg tgccagacac ttgaactagc agccaaggaa gtccctacca 180
tctcatgatg aggagcataa aggtggtgtg atgtgcaact gcctagaggc agataaataa 240
atgtgaaggc aaagtgggcc aaggaagcaa gaggtggaaa agaccaacaa aattcaacta 300
acttccctcc ccagtccaca actatgctaa ccccttctgc cactgggcca actgcagaga 360
taaaaatgcc agtgactcac tccaggttgg gctcttgagg ctgccacaag cctgatactc 420
agcctcgag 429

<210> 1064
<211> 210
<212> DNA
<213> Homo sapiens

<400> 1064
gaattcgcgg ccgcgtcgac gaatgggatg cataccatag acgaacgagg cggagactat 60
tgcgggaatc ttactgttca ggagctgttc ctagaactaa ctcccttact gtcattgatg 120
tgcattccac tctgtgcttt tctgtacaac cattcaagtt ttaatttccc aggtgaacca 180
tctttatctg ccattaccac aagcctcgag 210

<210> 1065
<211> 262

<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (138)

<400> 1065
gaagaaaatg aagcacctgt ggttcctcct cctgctggtg gcggctccct tacgggtcct 60
gtcccaggtg cagctgtatg agtcgggccc agggctgatg aagccctccg agaccctgtc 120
cctcacctgc ggtgtctntg gtggctccct cagtggtgct gccgacttct ggggctgggt 180
ccgccaggcc cccgggaagg ggcttgagtg gattggcaat atgcaccatc gtggaaatgc 240
ccattacaat ccgtccctcg ag 262

<210> 1066
<211> 262
<212> DNA
<213> Homo sapiens

<400> 1066
gaattcgcgg ccgcgtcgac ggaccggcgg cgtgttgttg gcgttctaga ccttgaacga 60
cggcgggtta ctggtggcgt tctggatctg gatcgccttc tgctcactgg ggatgctctt 120
gaccgggatc ttcgtcgagt cactgaagtc ctggaccttg accgtctccg gctgactggt 180
gaagttcgag atctggacct acgtcggctt atcagggggg ttctggacct ggatcgccgg 240
tgagtggctg gagaggctcg ag 262

<210> 1067
<211> 123
<212> DNA
<213> Homo sapiens

<400> 1067
gaattcgcgg ccgcgtcgac cgtcgattga attctagacc tgcctcgagt tctcaattct 60
gttaacaatt taaaatttca ttaattgtgt ttaatatcaa tgaatctcaa aaggctcctc 120
gag 123

<210> 1068
<211> 265
<212> DNA
<213> Homo sapiens

<400> 1068
gaattcgcgg ccgcgtcgac ggggttctgt ttccatacaa cattgtttat ttccgattcc 60
tcagaagatc ctttattatg aataacctca gtgtaatgtt aatttcccgt ccccatgtca 120
aaattgtcac cctaagcctt tttttttttt tttttttttt ggagacgggc tcactctgtc 180
agccacgctg gagtgcagtg acatgatctt gactcatggc aggcttgacc tcctgggctc 240
aaggaccacc tcccaagcac tcgag 265

<210> 1069
<211> 153
<212> DNA
<213> Homo sapiens

<400> 1069
gaattcgcgg ccgcgtcgac gattgtagat attgggctgt taattgtcag ttcagtgttt 60
taatctgacg caggcttatg cggaggagaa tgttttcatg ttacttatac taacattagt 120
tcttctatag ggtgatagat tggtccactc gag 153

<210> 1070
<211> 563

<212> DNA
<213> Homo sapiens

<400> 1070
gaattcgcgg ccgcgtcgac agggcacttc ctctaagtaa acacaaatat ttctgtagtg 60
aactgtatgc atattcccac tgagtaaagg ttataagaag cctcaggtca ggtcttacca 120
ccaaacttga aaacacttgg aatgcagctg ggcagggact tgagcaggtt ttgtcttgat 180
aagcaggtaa gaatggcaga acactggctt attgtcaacc aatgtttttt tatatacctg 240
aagtattcat tgaattctag acctgcctcg agtatgggga gatgggaaaa ggcaggttag 300
gggcatgcag gctcagggaa cagggtcttg gtgggtggat ggatagccat ggaggcagaa 360
agaggcctct gcaggaagaa cctgggagag cggagaggag gtggtgaggc aggggagcac 420
tatggaatgg ccctgaggcc aggaggggct caggatgacc aggcaaaagc acagctggtc 480
caggatggag gggaggcctg cacagcatga gcaggaggct agaggagaca gaccatgagg 540
ccctgggaga cccctcactc gag 563

<210> 1071
<211> 511
<212> DNA
<213> Homo sapiens

<400> 1071
gaattcgcgg ccgcgtcgac gtcgatgcct tctagtctca gtgaatttaa cctgtgattt 60
tatgtctacg tatattgttc ctttactgaa cccaccacat gcgggccata aaatgagtga 120
aatcacagtg caccctgttc tcttattttt gaagtgtttc acgatttcca gcatgtccat 180
cagatggggg gattgctaac ttctctctta ctcatgtact tacattctgt agttctcatt 240
gcatcacttt ggatgtttac tttgaaaagc agaaactgtc tctttaaact tggccctcaa 300
tgtcatttgc gtatctctga gaacaatagc tatgtcccac cccagtttgt atttccgttg 360
gttgttggca ctttttctc attcccccat ctcattacct tgtctgtttt ctggcactca 420
ctataatcag ccttgcacta gagctgtttg tggacttggc ttcacccccct cctcctcagc 480
cctcccccac ccattaaatt gcgagctcga g 511

<210> 1072
<211> 339
<212> DNA
<213> Homo sapiens

<400> 1072
gaattcgcgg ccgcgtcgac agggcatcga gagtagtggg aacgtggtat gagatcaggt 60
tggaaaggtg aatgaagatt gaaaaaaaaa agacggcaaa tagagtagat gctgctagac 120
caattaggaa acttctagtt caggcaagag ataatgatag cataggctga ggacaggtgt 180
tggtgatggt gatgcaaaga gcgttaggat tctgagatat ttggcaggta ctgttgatag 240
gtggagtgga ggtagaagag aaagatcatg agtttgactt tagatatgtt aagtttgatc 300
taccttgaag acatccaaga gaagacaccg ggactcgag 339

<210> 1073
<211> 226
<212> DNA
<213> Homo sapiens

<400> 1073
gaattcgcgg ccgcgtcgac tttgatattc tattccattt ttttcagtct tctttgcctt 60
tgctcttcaa ttttgaaagt ttctattgac acatcctcaa gctcagagac tctgcttagc 120
catgtccggt ctactaatga gcccatcaaa agcattcttc acttctgtca cagtattttg 180
ctctgtatca tttcttttt attctttcct agaacttccg ctcgag 226

<210> 1074
<211> 186
<212> DNA
<213> Homo sapiens

<400> 1074
gaattcgcgg ccgcgtcgac gcagatgtcc atttcaacag gcttaagtgc aaccatgaat 60
ggaatcatcg aatctttgat tcttcctgga ataataagta ttcatcctgt tgtaagaaac 120
ctggctgttt tatgcttggg atgctgtgga ctacagaatc aggattttgc aaggaaacac 180
ctcgag 186

<210> 1075
<211> 247
<212> DNA
<213> Homo sapiens

<400> 1075
gaattcgcgg ccgcgtcgac ggtagggatc caccacatat atttataggc ttccagagtg 60
gcttagccat tttgaaacca gtcatattct atttggcatg cttctagctt taacaattaa 120
ccttcttaca ttaatacatg ctttgaatcc agagagtatc tgctgctttg gatctgaaat 180
ggactggcag atctgcggag ctacagcaga gaaaaaatac tggggagaat taaaagttct 240
ccctata 247

<210> 1076
<211> 222
<212> DNA
<213> Homo sapiens

<400> 1076
gaattcgcgg ccgcgtcgac atacctccat ttgcaaacaa aatttcattc ccacttcctg 60
agtccatcca gagtgctgct ccaaccttcc tctgctctct gctaaatatt accgctctag 120
tggtacattc ctattggcat actaactgct gctatttctt ccatcttgaa aacaggaata 180
acaaattaac ttatcatgat tctacttccc caaatactcg ag 222

<210> 1077
<211> 167
<212> DNA
<213> Homo sapiens

<400> 1077
gaattcgcgg ccgcgtcgac ggtaaaggtg aagtcagctt tttctagctt acagttctgt 60
catccagttc ctgagctaaa ataggcgcta cagttctgat tttggctttg tcatttgagt 120
ctctggctct tttctgtatg ggtcaagcta gaaggggaca actcgag 167

<210> 1078
<211> 170
<212> DNA
<213> Homo sapiens

<400> 1078
gaattcgcgg tcgcgtcgac atatatttgt atttttgtat gctttggaaa aagacaggaa 60
ataaacacca aaatgttgcc agtaggtatc tctgtgttaa gattagtgtt attattttct 120
tttctgtact tttctgtatt tcccaactgt tatataatga gcgactcgag 170

<210> 1079
<211> 225
<212> DNA
<213> Homo sapiens

<400> 1079
gaattcgcgg ccgcgtcgac ctaatgcatc acagcattct ttgaaatgga accagacaca 60
gcctgcctct caatcctcag ctggggggctc ctagcagcct cttgtattta ctcagagttg 120
acacatcaca cagatcctgt ttggcattcc taccttacgg acgtctcagg ggtgacagga 180
ccagggcaga gccccggtac aaacagacaa ggctgcaatc tcgag 225

<210> 1080
<211> 214
<212> DNA
<213> Homo sapiens

<400> 1080
gaattcgcgg ccgcgtcgac cgcatgtcca gtgggctggg aagcaagcac ttgaagagaa 60
ggaaggggag aaagggtccc ccttgctgtc tgcctctgag gaatggaaat cctttagacc 120
cggccttttt tggaccaata taaatttaat ttaaattgac agccttccat ttttcgagaa 180
agtacaaaca gaactgcttt agcacccact cgag 214

<210> 1081
<211> 102
<212> DNA
<213> Homo sapiens

<400> 1081
gaattcgcgg ccgcgtcgac gtggtgtctc tacaatactg tgctttttct ctccattaac 60
ataatgcatc tgagagtact tctccttcag catgttctcg ag 102

<210> 1082
<211> 273
<212> DNA
<213> Homo sapiens

<400> 1082
gaattcgcgg ccgcgtcgac agccaatata tttcatttta aagcaagcaa taaaaactta 60
tttcgctgtt taatattttt attgacttta aaaagacttt gaacttagtg aaagagaatc 120
agtcacctag aaatgtactg ctctcatcta gctgggaagg tcattgtaat tttcttctat 180
atagatttgt ttgctctaga taagcggctc aatttgaata gatttttagt ggtagaaaga 240
gatgacggaa gcacattaat ggaacaactc gag 273

<210> 1083
<211> 264
<212> DNA
<213> Homo sapiens

<400> 1083
gaaattcgcg gccgcgtcga ccctaaaccg tcgattgaat tctagacctg cctgctttcc 60
tgcctgcccc acctgcctca tattgtgtgg gccttttttt gtttgtttca ttcattgttt 120
tttttttttt aattatttta aatgagattt ttgttttttt taaatgcaat atctctgtat 180
acagactggc tgggccccac cccctgcgtg tggccctccc acagtatttt gtgcaatgaa 240
gccctgctcc cagccactct cgag 264

<210> 1084
<211> 383
<212> DNA
<213> Homo sapiens

<400> 1084
gaattcgcgg ccgcgtcgac caacagccag tttggcctcg tggacatccc tgtggagttc 60
aagctggtca ttgcccaggt cctgctcctg gacttctgcc tggcgctcct ggccgaccgc 120
gtcctgcagt tcttcctggg gaccccgaag ctgaaagtgc cttcctgaga tggcagtgct 180
ggtacccact gcccaccctg gctgccgctg ggcgggaacc ccaacagggc cccgggaggg 240
aaccctgccc ccaacccccc acagcaaggc tgtacagtct cgccccttgga agactgagct 300
gggaccccca cagccatccg ctggcttggc cagcagaacc agccccaagc cagcaccttt 360
ggtaaataaa gcagcaactc gag 383

<210> 1085
<211> 282

<212> DNA
<213> Homo sapiens

<400> 1085
gaattcgcgg ccgcgtcgac ctttgagatt gtcacttctg tacataaacc acctttgtga 60
ggctctttct ataaatacat attgtttaaa aaaaagcaag aaaaaaagga aaacaaagga 120
aaatatcccc aaagttgttt tctagatttg tggctttaag aaaaacaaaa caaaacaaac 180
acattgtttt tctcagaacc aggattctct gagaggtcag agcatctcgc tgttttttttg 240
ttgttgtttt aaaatattat gatttggcta cttgcactcg ag 282

<210> 1086
<211> 184
<212> DNA
<213> Homo sapiens

<400> 1086
gaattcgcgg ccgcgtcgac cctgtttatt agaaagtgag gagaggatga ttatgttcct 60
tcatcctctc agtgtcttag tactccctac acctgcgtta tgttatgacc tacctttgcg 120
atctgccagt tttggggtca gcttaagtga gaattcatat tctgcttcac tggaatcact 180
cgag 184
<210> 1087
<211> 190
<212> DNA
<213> Homo sapiens

<400> 1087
gaattcgcgg ccgcgtcgac gtgagtcacc atgcccggct attgctttct tatattgaca 60
gtgggtttgt actctctcta tgtcctacgg cactgccatc agatggtggg aaattatgac 120
aggttgttgc tgggtatcct gtagctaagt aatacctagc gaggaaatca ggattagaaa 180
ataactcgag 190

<210> 1088
<211> 110
<212> DNA
<213> Homo sapiens

<400> 1088
gaattcgcgg ccgcgtcgac caaataataa aattgttcaa caggaagctt tcttggccag 60
gtttctccac caaatccata atgctgatgt cctttgccca tatgctcgag 110

<210> 1089
<211> 226
<212> DNA
<213> Homo sapiens

<400> 1089
gaattcgcgg ccgcgtcgac ctgtaataag cattataatt cctgttctta aaataataag 60
ttcatttaag gaaaaggggg tgaaaggaaa aatctgcaga atttaggtct gagataatac 120
catttcaaag cactgtgata caaattactt atatatgtta tatactgtgt gtgtgttaac 180
tacttttatt tgggggcttg ttttgcatac atgtgaaggt ctcgag 226

<210> 1090
<211> 267
<212> DNA
<213> Homo sapiens

<400> 1090
gaattcgcgg ccgcgtcgac ggcaggataa aacaacatag aaaatataaa acaatttttg 60
ctttgaaaaa tacagtgcag gtgaccattt actgcttatt ctgtaatcct tactgtctat 120
aattaacttc agtaacactg aaacttgatg aaaagtttta aaaaattatt tactgtaggg 180

acaaagttat atggaatgtt gttattttct atactatctg aatgcactgc cagtgaagac 240
tgtaaagaca gaacacaaac actcgag 267

<210> 1091
<211> 186
<212> DNA
<213> Homo sapiens

<400> 1091
gaattcgcgg ccgcgtcgac gtcattttgc tctttcccct ctggtgaaaa atcattcctt 60
ttttatcccg tggcatatat atgtttgcct ttataaatta ggatcaattt ttgtatgttt 120
aggcagtcat ttttactttg cgtttttcta ttctgtttta aaagcattta tggccaaaaa 180
ctcgag 186

<210> 1092
<211> 282
<212> DNA
<213> Homo sapiens

<400> 1092
gaattcgcgg ccgcgtcgac gtggtctact cgtggataag ttcaaactaa atggatggga 60
aaaaatataa catcctaaca ttcataaagg aaagctgaag tggttacatt agaacaagca 120
atgttgctaa ggataagatg agacatttca taatgataaa tgggtgaatt catcaagaaa 180
acagttctaa acaggtgtgt acctaattac agtttcaaaa tacatgaagt aaaatctgct 240
ctcattgaaa ggaaaaatat ataaaatcaa aatctactcg ag 282

<210> 1093
<211> 208
<212> DNA
<213> Homo sapiens

<400> 1093
gaattcgcgg ccgcgtcgac gccttctatt gtgctttgtt tttgctgact tttctgcacc 60
ctgtttcctt tggatattca gttctctcaa cctcaagatt gagacggtgg tgggtatgct 120
tctccacttc catatgacct tcatgctgtt ctggaatatc acatgctacg aggtcatcct 180
tcacactact tgtaagccaa cactcgag 208

<210> 1094
<211> 187
<212> DNA
<213> Homo sapiens

<400> 1094
gaattcgcgg ccgcgtcgac ccttaatgcc atccttcatt gtctttctgg cttctcttct 60
tctggcacag taccattttg ggtctgtgcc ccagtgtgga gcaaaacatt gcctgtccca 120
ttctgatata cttcagaatt tgagagcaga agttaatgtg gaacaaaagt tttcaccatc 180
tctcgag 187

<210> 1095
<211> 221
<212> DNA
<213> Homo sapiens

<400> 1095
gaattcgcgg ccgcgtcgac ggcactgttt tttttttaaa cagttaagta ctgatgtcaa 60
cagacaaata tttctgatca gatagtcccc tgtcaacagt agcaaatgtg gtttcataaa 120
gtgggaagaa aacagcattt taaagtaact ttttgggaga ctgatttgag taataataaa 180
actctggtct cccttaagaa aaaaaaaccc ttccgctcga g 221

<210> 1096

<211> 241
<212> DNA
<213> Homo sapiens

<400> 1096
gaattcgcgg ccgcgtcgac tataaataga ttttttgtt gaatgttaat tcagttatat 60
atttcttctt tgatatgttc tttagttgat gcaggccagt taaaatgagt gacttcaagt 120
tttagagaaa tacataacaa tgtcagttta taattatttt gtttttata caatttacta 180
ttttagaatc tcattcatat tccattgtat ttccatgaat gatactttgg gacaactcga 240
g 241

<210> 1097
<211> 192
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (29)

<400> 1097
gaattcgcgg ccgcgtcgac gagacaccna aatccagtca gtatctaatc tggcttttgt 60
taacttccct caggagcaga cattcatata ggtgatactg tatttcagtc ctttcttttg 120
accccagaag ccctagactg agaagataaa atggtcaggt tgttggggaa aaaaaaagtg 180
ctggctctcg ag 192

<210> 1098
<211> 190
<212> DNA
<213> Homo sapiens

<400> 1098
gaattcgcgg ccgcgtcgac cgtcgattga attctagacc tgcctcgaga tgctccttct 60
taacgtgctg gcctctgtgc tcatggcctg catgacgctg ctgcccacct ggttgggagg 120
cgctccccca ggccctcccg gccccgacat ctcctcgccc tgcggctcct ataacccccc 180
cccactcgag 190

<210> 1099
<211> 152
<212> DNA
<213> Homo sapiens

<400> 1099
gaattcgcgg ccgcgtcgac gtgttgtttg tttgtcagac tcttctgaaa gtttggagtt 60
aatgggagat gagaaagcat attgaaagaa tacttttctt tttttttaat tattattatt 120
atactttaag ttttagggta cgagcactcg ag 152

<210> 1100
<211> 295
<212> DNA
<213> Homo sapiens

<400> 1100
gaattcgcgg ccgcgtcgac ccccgatcca ggcacctggc cctcagcggg cccacctttg 60
gtatcattgt gaagcacttc cccaagctgc tgcccaaggt cctggtccag ggcactgtct 120
ttgcccgcat ggcccctgag cagaagacag agctggtgtg cgagctacag aagcttcagt 180
actgcgtggg catgtgcgga gacggcgcca atgactgtgg ggccctgaag gcggctgatg 240
tcggcatctc gctgtcccag gcagaagcct cagtggtctc acccttcacc tcgag 295

<210> 1101

<211> 259
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (32)

<220>
<221> unsure
<222> (48)

<220>
<221> unsure
<222> (66)

<220>
<221> unsure
<222> (205)

<220>
<221> unsure
<222> (212)

<400> 1101
gaattcgcgg ccgcgtcgac tattggagtg cnaagtgctg tgattgtngg tggaattgat 60
tcaatntctc aatctttggc ccttgcaaaa aaaccacata taataatagc aactcctggt 120
cgactgattg accacttgga aaatacgaaa ggtttcaact tgagagctct caaatacttg 180
gtcatggatg aagccgaccg aatantgaat anggattttg agacagaggt tgacaagatc 240
ctcaaagtga ttcctcgag 259

<210> 1102
<211> 173
<212> DNA
<213> Homo sapiens

<400> 1102
gaattcgcgg ccgcgtcgac gttaaggagt aggcctcctg agtaaaggag gtgtgatttt 60
ttttttcttt gaggtgggag tatagttgga actaaataaa ctacgtgtga atttaccata 120
tcaactaaaa ttttgatcaa atggtttttt taaattgtgt ggtacttctc gag 173

<210> 1103
<211> 277
<212> DNA
<213> Homo sapiens

<400> 1103
gaattcgcgg ccgcgtcgac ggggtgggta tgcgccaacc ctatttcagg cagcgctcaa 60
agtaggtgga gccgatgtag ccacccccgca tggagcgctg cacgttctgc tcaaacagcc 120
gccggttgtt ctgcaggacc tctgcggcct ccttgttcag tgggtcctcg gggttgggct 180
ccaagaagag atactgcagg ccataaatta tggagtttat cgtaaggact ggcttccagt 240
cctctctgag gatgttgagg cagacgttgc cctcgag 277

<210> 1104
<211> 208
<212> DNA
<213> Homo sapiens

<400> 1104
gaattcgcgg ccgcgtcgac agaatacttc gcctaaaata ctgttaagtg ggttaattga 60

tacaagtttc tgtggtggaa aatttatgca ggttttcacg aatccttttt tttttttttt 120
tttttttgag acggagtctc gctctgttgc cacgctggaa tgcagtaacg tgatcttggc 180
tcactgcgac ctccacctct ccctcgag 208

<210> 1105
<211> 180
<212> DNA
<213> Homo sapiens

<400> 1105
gaattcgcgg ccgcgtcgac gttcctctct ggcatggtgg ctcaaattga tgctaactgg 60
aacttcctgg attttgccta ccattttaca gtatttgtct tctattttgg agccttttta 120
ttggaagcag cagccacatc cctgcatgat ttgcattgca atacaaccat aacgctcgag 180

<210> 1106
<211> 309
<212> DNA
<213> Homo sapiens

<400> 1106
gaattcgcgg ccgcgtcgac gtcgacgcgg ccgcgaattc gcggcgcgtc gacccaggaa 60
aggcctgtgg ggctctcctc cccgcgctcc acacgccctc gcatcccacc gaggcgccag 120
cttctgcctg cacgttgctg aaactggcct ggaggttctg acaagaatta gagcggcggc 180
cgttgccccg gggatgacct ggaagcgaaa gagaccggca cgaattctag agtttcgggg 240
tttccgcggg ttgagattgt acgggaaaca atgcattaac caaacctaaa aatcaaacaa 300
acactcgag 309

<210> 1107
<211> 185
<212> DNA
<213> Homo sapiens

<400> 1107
gaattcgcgg ccgcgtcgac cagcattagc agaccgaaac aggagggaag gaagtggtaa 60
cccaactcca ttaataaacc ccttggctgg aagagctcct tatgttggaa tggtaacaaa 120
accagcaaat gaacaatccc aggacttctc aatacacaat gaagattttc caggcattac 180
tcgag 185

<210> 1108
<211> 269
<212> DNA
<213> Homo sapiens

<400> 1108
gaattcgcgg ccgcgtcgac atgtattgga tgaacgaata tacctcatcc attggaattg 60
gagtttttca ttcaggaatt gaagtctatg gcagagaatt tgcttatggt ggccatcctt 120
acccctttc tggaatattt gaaatttccc caggaaatgc ttctgaacta ggagaaacat 180
ttaaatttaa agaagctgtt gttttaggga gcacggactt cctagaagat gatatagaaa 240
aaattgtaga agaactggga tcactcgag 269

<210> 1109
<211> 164
<212> DNA
<213> Homo sapiens

<400> 1109
gaattcgcgg ccgcgtcgac acctgattac tttttcacct ctacaaccag gagaattttg 60
aatttaaaaa taaatccaaa cattttcctt catattatca atgcttatat attccttaga 120
ctattgaaat tttggagaaa atgtatttgt gttcacttct cgag 164

<210> 1110
<211> 255
<212> DNA
<213> Homo sapiens

<400> 1110
gaattcgcgg ccgcgtcgac gattttaaaa tatttctttc ttaaatttct ctttcatgtt 60
atgaattgtt tttctgattt tattgaatta tctttctgta ttatcttgta tcctattgag 120
ggttttttgt ttgtttgttt gtttgtgaga cagagtgtca ctctgtcacc taggctggag 180
tgcagtggcg tgatcttggc tcacaacaat ctttgccttc caagttcaag tgattctcct 240
gccccaaacc tcgag 255

<210> 1111
<211> 284
<212> DNA
<213> Homo sapiens

<400> 1111
gaattcgcgg ccgcgtcgac agctctttgg cctcagaatt ttcagtagcc agtatttctg 60
attaactaag ttgaaactct tattagaaac tttcagttgg tgatattgta ttctagaaga 120
tataaatgag aggtttggct tcatctcagt ttagaaattt attcaaagct aaagatgtat 180
atatacatat acttttgtgt gtatatatac acatatgtgt gtatgcagtt tgtcaggtta 240
tatatagaat ttctattaag gatttttaa atggacagct cgag 284

<210> 1112
<211> 303
<212> DNA
<213> Homo sapiens

<400> 1112
gaattcgcgg ccgcgtcgac tgcaattcta atgcattcta cgtttttgaa aatcgataat 60
ccatggaagg tccatgggtt gatacctcag gtcaaaaatg tgtttactct gttgattgct 120
gtttcacttt acttgtatat cagatatata agctatgaac acaagtttgt agtaaaagta 180
tcttctgtct gggcaatggc tcacacctgt aattccaaca ctttgggggg ctcaggtggg 240
aggatttcta gtccccagga gtttgagacc agcctgggca ataaactaga ccccactctc 300
gag 303

<210> 1113
<211> 105
<212> DNA
<213> Homo sapiens

<400> 1113
gaattcgcgg ccgcgtcgac ggggcttgta atttacatga gaaccgtgct ggtcactagc 60
gctgtctgtg tctgtctgtc ctgcgggact tctgctctcc tcgag 105

<210> 1114
<211> 216
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (73)

<220>
<221> unsure
<222> (86)

<220>

<221> unsure
<222> (104)..(105)

<400> 1114
gaattcgcgg ccgcgtcgac gagaggagac acaggaagcc cagagagcca gatcgagaca 60
agaaacaccg agnaaaaagc agcacnaggg aaaaaagaga gacnnattcc aaagagaaaa 120
gtaattcatt ctctgacaaa ggggaagaaa gacataaaga aaagcgacac aaagaaggtt 180
ttcattttga tgatgagagg caccgctata ctcgag 216

<210> 1115
<211> 286
<212> DNA
<213> Homo sapiens

<400> 1115
gaattcgcgg ccgcgtcgac gctttctggt gattgggacc ctgatgccaa gtgcccactt 60
tgcaaagaag aaaaagttaa tgaccctgct cccttggctc ctgtccatgc ttgcctggcc 120
tcctagagtt ggaggaacaa gccctctcct ggcagaggca ggagagcaag tgctctccta 180
tgatccaata catcaggcgg gagtgctgag tccgtcagga caccactcct cgcagcatca 240
aggtccagtg gggttgggtc agggcagtga gaaggggtgg ctcgag 286

<210> 1116
<211> 170
<212> DNA
<213> Homo sapiens

<400> 1116
gaattcgcgg ccgcgtcgac gaagaaaata ccaagtgttc attctgtcat tagcaaggaa 60
caccaatgag gtttcttttt tttctctatt tagggcatat taaaattatc cttcagagta 120
cttgtattga aaatcaagtt tatgcttctg aaaagaatcg tgggctcgag 170

<210> 1117
<211> 191
<212> DNA
<213> Homo sapiens

<400> 1117
gaattcgcgg ccgcgtcgac atttctcttg gaattgggct gctaacaact tttatgtatg 60
caaacaaaag cattgtaaat caggtttttc taagagaaag gtcctcaaag attcagtgtg 120
cttggttact ggtattctta gcaggatctt ctgttctttt atattacacc tttcattctc 180
agtcactcga g 191

<210> 1118
<211> 175
<212> DNA
<213> Homo sapiens

<400> 1118
gaattcgcgg ccgcgtcgac gttctttcta tggaacccag ttggaaaaga tcatttgtta 60
accaggggct ctgttcttat agatgcatat cagaatgatc cacagtcaga actttgtggg 120
cctcttgtta atgctggaaa tttttcaaca ggcctggaag acagccggac tcgag 175

<210> 1119
<211> 205
<212> DNA
<213> Homo sapiens

<400> 1119
gaattcgcgg ccgcgtcgac attctatagg attttctata tacgagatta tgccgtctgt 60
gaaaagagat cgttttattt cttcctttgt gatctggatg acctttattt ctttttcttg 120

cctaattgcc ctgattagaa tttccactac aatgttgagt atttgtggta agagcagata 180
ttcttgtctt gttcctgatc tcgag 205

<210> 1120
<211> 276
<212> DNA
<213> Homo sapiens

<400> 1120
gaattcgcgg ccgcgtcgac cacagacata gttctaaatg actttcagct atttctagaa 60
attagacaca tcttcctaag cgaaggttta ccatgtttaa ggttccatga aagaatgtgc 120
cctaagttgt tgcccagccc ctggctgaga agaaacgggc gtgtgggagg cgggtgaaga 180
gcacacaggg aggggacgga gaagctcctg agccagcctc cttcatggct cagtttcatt 240
tcagtgcgtg gcacttccca gaagaaacga ctcgag 276

<210> 1121
<211> 339
<212> DNA
<213> Homo sapiens

<400> 1121
gaattcgcgg ccgcgtcgac gggggttccc cctgctgagg agagaccagg tggaccccag 60
ctgcctgtca cccttcatct gggacttgct gtcaaaccct aggatagtct cataaagggg 120
aggctgggcc agcctgctgc tgtctgcttc aggaccaggc agagagtgag gctgggggtt 180
ctcacacctt actccaccgg gcacatccca acctgcactg gggcccaccc gagcgcttgt 240
tctggtctca gccgctccct tggcagctgc agcccccatg cagaagaggc tcccaggccc 300
aagctctgtg tgacccagag aaataatgat gcactcgag 339

<210> 1122
<211> 168
<212> DNA
<213> Homo sapiens

<400> 1122
gaattcgcgg ccgcgtcgac ccatacccag cctgtttaat tctttataat tcacttctgt 60
tgtgaaaaca gcattttata cttaagctta atgattgcaa cagtcaaaat tatttatttt 120
ttaaacttca cttatcattt aggaattatt ttcccgcaag gactcgag 168

<210> 1123
<211> 202
<212> DNA
<213> Homo sapiens

<400> 1123
gaattcgcgg ccgcgtcgac attcatctag catggaaggg agtgaaacag gttctcggga 60
gggttcggat gttgcctgca ctgaaggcat ttgtaatcat gatgaacacg gtgatgactc 120
ttgtgttcat cactgtgaag acaaagagga tgatggtgat agttgtgttg aatgttgggc 180
aaattctgaa gcagaactcg ag 202

<210> 1124
<211> 172
<212> DNA
<213> Homo sapiens

<400> 1124
gaattcgcgg ccgcgtcgac cattattgta aataaaacct aatattttaa actatatata 60
tctttttaat tagattacac caccaccttc actgtcagat ccacttaaag agcttttcg 120
acaacaggaa gttgtaagga tgaaactacg tttgcaacac agcatactcg ag 172
<210> 1125
<211> 164

<212> DNA
<213> Homo sapiens

<400> 1125
gaattcgcgg ccgcgtcgac cgattgaatt ctagacctgc ctaggcacag atgctaatgc 60
aggcactgca ggtaagctgg gcttggtatc cttccctggc ttcagaaaga agccaacaag 120
gagcgttttg cagaatgaaa cctttgtttc cacaagcact cgag 164

<210> 1126
<211> 563
<212> DNA
<213> Homo sapiens

<400> 1126
gaattcgcgg ccgcgtcgac atttggtcat tgggaattac tgctattgaa ctagccaagg 60
gagagccacc taactccgat atgcatccaa tgagagttct gtttcttatt cccaaaaaca 120
atcctccaac tcttgttgga gactttacta agtcttttaa ggagtttatt gatgcttgcc 180
tgaacaaaga tccatcattt cgtcctacag caaaagaact tctgaaacac aaattcattg 240
taaaaaattc aaagaagact tcttatctga ctgaactgat agatcgtttt aagagatgga 300
aggcagaagg acacagtgat gatgaatctg attccgaggg ctctgattcg gaatctacca 360
gcagggaaaa caatactcat cctgaatgga gctttaccac cgtacgaaag aagcctgatc 420
caaagaaagt acagaatggg gcagagcaag atcttgtgca aaccctgagt tgtttgtcta 480
tgataatcac acctgcattt gctgaactta aacagcagga cgagaataac gctagcagga 540
atcaggcgat tgaagaactc gag 563

<210> 1127
<211> 217
<212> DNA
<213> Homo sapiens

<400> 1127
gaattcgcgg ccgcgtcgac ctcttagctg agcaggcgag agcatcatgg ataccgactt 60
atatgatgag tttgggaatt atattggacc agagcttgat tctgatgaag atgatgatga 120
attgggtaga gagaccaaag atcttgatga gatggatgat gatgacgacg acgatgacgt 180
aggagatcat gacgatgacc accctgggaa actcgag 217

<210> 1128
<211> 222
<212> DNA
<213> Homo sapiens

<400> 1128
gaattcgcgg ccgcgtcgac gaaaaccgct acattgtcct ggccaaggac ttcgagaaag 60
catacaagac tgtcatcaag aaggacgagc aggagcatga gttttacaag tgacccttcc 120
cttccctcca ccacaccact caggggctgg ggcttctctc gcacccccag cacctctgtc 180
ccaaaacctc attccctttt ttctttaccc agagctctcg ag 222

<210> 1129
<211> 185
<212> DNA
<213> Homo sapiens

<400> 1129
gaattcgcgg ccgcgtcgac ggctgcagac agacaaacac ctgagctgtt ctgaatacct 60
tcaggttcct ggcctccctg agcaagtgca gaaattttta ccttcaagga tcagggtttt 120
tctgtttgtt tgttttttaa cacacatata tgtgaacaaa gagtatgcgt ttgtactggc 180
tcgag 185

<210> 1130
<211> 167

<212> DNA
<213> Homo sapiens

<400> 1130
gaattcgcgg ccgcgtcgac cgtgtgagtg tgtgtttgta tacgtctggc aattaaagct 60
ttgtcttctg gaacttagtg aattctttc tctttttcct ccagaagtat ttgttacaag 120
atttgtaaat aagagctcta cttagtttgt ttaccatgaa cctcgag 167

<210> 1131
<211> 218
<212> DNA
<213> Homo sapiens

<400> 1131
gaattcgcgg ccgcgtcgac cttttgcttt tcttcctcta caattctact ctccttttcc 60
tgtctctttt ccaatctatc ctcatttcct cctcctgcct cctctcttat cctatactta 120
tggctgctca acttctgtct attcctcttt cctctctcct tcccacctgc ctgttcatcc 180
tatttctctc tcctgccgct ctatccccac cgctcgag 218

<210> 1132
<211> 354
<212> DNA
<213> Homo sapiens

<400> 1132
gaattcgcgg ccgcgtcgac ctctttgatg ttttgttttc tattttattt ttcgtttttg 60
tgtgtctgca tggtgttttt cgggcagtgg cttctgccat catcaccaca tgtttctctg 120
ctgcccactg tcctgaggtg ggccgtcgtg gaagccctgc ttcctgccgt ttgcgggacg 180
agtcccgccc tctttttcc tgtccccatc ggtagtctgc gtgcacgtgt tttccacagt 240
aaaaccgtgt tgtgtaactc tttccagcaa agtaacaatc cgccattaca aaggtcgtcc 300
tccttgatcc agttaacgag tcagaactct tctcccaatc agcagaacct cgag 354

<210> 1133
<211> 464
<212> DNA
<213> Homo sapiens

<400> 1133
gaattcgcgg ccgcgtcgac agacttgtta ctggaataga agaactacgt actaagctga 60
tacaaataga agctgaaaat tctgatttga aggttaacat ggctcacaga actagtcagt 120
ttcagctgat tcaagaggag ctgctagaga aagcttcaaa ctccagcaaa ctggaaagtg 180
aaatgacaaa gaaatgttct caacttttaa ctcttgagaa acagctggaa gaaaagatag 240
ttgcttattc ctctattgct gcaaaaaatg cagaactaga acaggagctt atggaaaaga 300
atgaaaagat aaggagtcta gaaaccaata ttaatacaga gcatgagaaa atttgtttag 360
cctttgaaaa agcaaagaaa attcacttgg aacagcataa agaaatggaa aagcagattg 420
aaagacttga agctcaacta gagaaaaagg accaacagct cgag 464

<210> 1134
<211> 159
<212> DNA
<213> Homo sapiens

<400> 1134
gaattcgcgg ccgcgtcgac gttgggttat ttgtctcatt ataagtttta ggaattgttt 60
atatattcta gatatatgtt ccgtattgga tatatgattt gcaaatgttt tttcgcattc 120
tttgggttat cttttcactt tcttggtagt gaactcgag 159

<210> 1135
<211> 419
<212> DNA

<213> Homo sapiens

<400> 1135
gaattcgcgg ccgcgtcgac aaggaatctg agaaaaaggg gttgattgaa agaatctata 60
tggtacagga tattgtttca actgttcaaa acgtcttgga ggaaatagct tcttttggag 120
aaaggattaa gaacacattt aactggacgg tccccttcct ttcatctctg gcctgtttga 180
ttctggcagc agccaccatc attttgtatt tcattccact gcggtacatc attttaatct 240
ggggcataaa taaatttact aagaagcttc gaaatcccta ttccatcgac aataatgagc 300
tactagactt cctctctagg gtaccgtctg atgttcaaaa ggtgcagtat gcagaattga 360
aactctgcag cagccacagc cccctgcgga agaagcgcag cgctccaggg cacctcgag 419

<210> 1136
<211> 238
<212> DNA
<213> Homo sapiens

<400> 1136
gaattcgcgg ccgcgtcgac gcatatcagg agagaagttg ggagtctttc aggtataccc 60
cgtttccatg tttttggtag taaaagggat gctttgcaaa gcccttgatc agtttcccag 120
cattttggtt tggatgactt tgacaagtgt tgggaagtgg aggggtgttg tggctgatgg 180
tgtctgtttc ccccaggccc gcctgaactg taagcactgt gggaagcagg ctctcgag 238

<210> 1137
<211> 220
<212> DNA
<213> Homo sapiens

<400> 1137
gaattcgcgg ccgcgtcgac tgggcttcaa cttgatgttt ttctgctgcc agaagttcca 60
tatattctgt ttcttccttt attgcagcct ctctcagggc ctccaggcgc tgccggctgc 120
tctccttcat gttcacgaca tctttgtaat ccccctgcag ggctctctgc agtccgtaga 180
cagcttggaa aacggaattt tcacttccat tcagctcgag 220

<210> 1138
<211> 326
<212> DNA
<213> Homo sapiens

<400> 1138
gaattcgcgg ccgcgtcgac caaggaaatg tgagccccag gctgcagaag gaagagtcag 60
tgaatggctg cggtgtgaca acatgcacca ccagtggctt ctgctggccg catgcttttg 120
ggtgattttc atgttcatgg tggctagcaa gttcatcacg ttgaccttta aagacccaga 180
tgtgtacagt gccaaacagg agtttctgtt cctgacaacc atgccggaag tgaggaagtt 240
gccagaagag aagcacattc ctgaggaact gaagccaact gggaaggagc ttccagacag 300
ccagctcgtt cagccgagtt ctcgag 326

<210> 1139
<211> 256
<212> DNA
<213> Homo sapiens

<400> 1139
gaattcgcgg ccgcgtcgac ctggaaaatc ccaaaatatt tggaaaccat atagcacact 60
tacttctaaa attgtggtag aatacatata acatagaaat tattgttcta accattttta 120
aatgtacaat tcagtggtct taagcacatt cacattgttc tgtttatcta cagaacgctt 180
ttcatcttgc aaaactgaaa ctctgtattc attaaacact aactccccat tttctccttc 240
ccccatatcc ctcgag 256

<210> 1140
<211> 320

<212> DNA
<213> Homo sapiens

<400> 1140
gaattcgcgg ccgcgtcgac gactgatgtt ggagtctatg ctcatctgga tgtacttcca 60
gtcaaactca atgccccggg ctccgaccca taggggaatg cagcgggaca taataagctc 120
agcagtggcc cagcccaggg cagcaaccat gatcttgtac tctcccttgc cggcattccg 180
ggacatgaca aggtttagac ctatcaggtc tgccacatcc acgctggcct tcatgaactc 240
cccaatgaag tcatagatgc cgccttccca ggtgggaaag aaagtggcca agaacagcat 300
cttgcagagg cggactcgag 320

<210> 1141
<211> 273
<212> DNA
<213> Homo sapiens

<400> 1141
gaattcgcgg ccgcgtcgac ggctttctct gaaatgccaa agccacccga ttattcagag 60
ctgagtgact ctttaacgct tgccgtggga acaggaagat tttcgggacc attgcacaga 120
gcatggagaa tgatgaactt ccgtcagcgg atgggatgga ttggagtggg attgtatttg 180
ttagccagtg cagcagcatt ttactatgtt tttgaaatca gtgagactta caacaggctg 240
gccttggaac acattcaaca gcaccccctc gag 273

<210> 1142
<211> 186
<212> DNA
<213> Homo sapiens

<400> 1142
gaattcgcgg ccgcgtcgac tcgaggagtg ccctaatcga cgaggacccc caggcggcgt 60
tagaggagct gactaaggct ttggaacaga aaccagatga tgcacagtat tattgtcaaa 120
gagcttattg tcacattctt cttgggaatt actgtgttgc tgttgctgat gcaaagagac 180
ctcgag 186

<210> 1143
<211> 289
<212> DNA
<213> Homo sapiens

<400> 1143
gaattcgcgg ccgcgtcgac tgcctcagca cctttgcact ggttgttccc ttagtctgag 60
atccactttt acccattgtt cactttctca tttcattttg gtttctctca aacattgtct 120
cattatagaa accttgcctg acaactctaa catgtcagcc tctctgcgct tcttaggacc 180
tttctctcct cttacctgct ttttcttctt ccccactatg atttggtatc aaaatatttg 240
tgcattttgc aattcagtgt ttacagcctg tcaagccacc caactcgag 289

<210> 1144
<211> 534
<212> DNA
<213> Homo sapiens

<400> 1144
gaattcgcgg ccgcgtcgac gctgccttta ttctctgagc cttgactctg tcccaggcct 60
gccctggagc gcctgcacgc tcagctccct gaggtaggtc cggagggaga cccccgctg 120
ccccccgccc tcggccagga tacctctcac ctcatgtccc ctcctccaga cccccacagc 180
cctggatgcc ccatagcagc cctgccacgg ctggcagaac tgcctccacc ctccaccaac 240
ccccaagaca ggcaggtcga cgcggccgcg aattcgcggc cgcgtcgacg tggagaagga 300
cgtgccgtgc cgctgggttc tgagccggag tggtcggtgg gtgggatgga ggcgaccttg 360
gagcagcact tggaagacac aatgaagaat ccctccattg ttggagtcct gtgcacagat 420
tcacaaggac ttaatctggg ttgccgcggg accctgtcag atgagcatgc tggagtgata 480

tctgttctag cccagcaagc agctaagcta acctctgacc ccactgaact cgag 534

<210> 1145
<211> 149
<212> DNA
<213> Homo sapiens

<400> 1145
gaattcgcgg ccgcgtcgac ctaaaccgtc gattgaattc tagacctgcc tcgagaacca 60
ccccccacct tttggcctct tcatttattc cttaaatgtt attcctcaga cctccatttt 120
ttttttctct cttaatcaca ccactcgag 149

<210> 1146
<211> 138
<212> DNA
<213> Homo sapiens

<400> 1146
gaattcgcgg ccgcgtcgac tctagacctg cctcgcggaa cttcagtttg taaacaggct 60
ctggtttcac aaggtctaag aactccaggt gaaattcata gacattgtct cctttggcac 120
catgtccttg ggctcgag 138

<210> 1147
<211> 246
<212> DNA
<213> Homo sapiens

<400> 1147
gaattcgcgg ccgcgtcgac gttttgtctg ctttaaaatt ctgtattata ctgcatgtac 60
tcttttatgg cgtgcttttt tccttgttat tgtatcatga acactagttt gtttttcctg 120
tttttctttc cgttctgttc ctggacattt ttattttcag gatttggttg tatcatatca 180
gaaagaaacc tgtactcaat ggcagttact cctcatttct catcctcttt ccccccgaac 240
ctcgag 246

<210> 1148
<211> 190
<212> DNA
<213> Homo sapiens

<400> 1148
gaattcgcgg ccgcgtcgac gttcactgag cacttacata gattaacagt tacaagtttc 60
cataaatcag ttagaatatg actagcttca gggaaggaat tttcaacaac tgcaatcttt 120
gattgtttta ctgtgggaac ttgcagtgat ataattgaca acattattta acaataatag 180
gtatctcgag 190

<210> 1149
<211> 361
<212> DNA
<213> Homo sapiens

<400> 1149
gaattcgcgg ccgcgtcgac tgattatagc aaattcatac aaaccagacc taaaagaaaa 60
ctcagaaagc aacatggcaa tggaaaaaga aattggaaga ccagaggcac aggaggaaga 120
ggcagatggg gaagatgacg tagatggagt agaggaggca gaggaagagg aggcagggga 180
cgagggagtc gaggaagagg tggaggtggc actaggggga ggggaagagg gagaggagga 240
agaggtgctt ctagaggagc taccagagcc aaacgagcac gtattgcaga tgatgaattt 300
gataccatgt tttcaggacg tttcagtaga ctgcctcgaa ttaaaacaag aaaacctcga 360
g 361
<210> 1150
<211> 297

<212> DNA
<213> Homo sapiens

<400> 1150
gaattcgcgg ccgcgtcgac ccactgcgca cagcccattt atattaaagt gaagttgatt 60
atagtttcat atgtcttaag gaccattaaa aaaatttttt tggtgaatta tttattcata 120
ttttgcttat ttctcaacag gatatttgtt tttttccttc aatttttaa agttcttcaa 180
gtattaggga taatgtcatt atctgtgaag tgttttgcat atatttgctc agcttgtttt 240
ttgactttgc ttgtttttg ttttattct tttttgccac acaagccaga tctcgag 297

<210> 1151
<211> 346
<212> DNA
<213> Homo sapiens

<400> 1151
gaattcgcgg ccgcgtcgac caagtatgtt ctcagaagct atacactcat tatctgatac 60
ttgtaatcag ggtttactag cattgggcat cagtaagtct gttcaaacac cagatccttc 120
tcatccgtac ggattttcaa atatgcgcta tatttcttcg ctaattagtg gtgttggtat 180
tttcatgatg ggtgcaggac tatcttggta ccatggagtc atgggattgc ttcatcctca 240
accaatagaa tcccttctat gggcatattg tattttagca ggatcattag tatctgaagg 300
agcaacactt cttgttgctg taaatgaact tccaggaaag ctcgag 346

<210> 1152
<211> 256
<212> DNA
<213> Homo sapiens

<400> 1152
gaattcgcgg ccgcgtcgac ctgaatgccc catgcgcacc ccacagctcg cgctcctgca 60
agtgttcttt ctggtgttcc ccgatggcgt ccggcctcag ccctcttcct ccccatcagg 120
ggcagtgccc acgtctttgg agctgcagcg agggacggat ggcggaaccc tccagtcccc 180
ttcagaggcg actgcaactc gcccggccgt gcctggactc cctacagtgg tccctactct 240
cgtgaactcc ctcgag 256

<210> 1153
<211> 181
<212> DNA
<213> Homo sapiens

<400> 1153
gaattcgcgg ccgcgtcgac tagaagtgaa cagagaatta cacaagtgtg actatacaaa 60
ttgtaaaaca gatactataa tatttccttt tattttagtg ttatttagct ttattacaga 120
tttctatttt tgtcaaaact tcatggttcc tttcaagatc ttttttgcca aaacactcga 180
g 181

<210> 1154
<211> 304
<212> DNA
<213> Homo sapiens

<400> 1154
gaattcgcgg ccgcgtcgac agaatatatt attcccacag gaaaaactca gaaaaggtgt 60
gtaaaatcct cagaaggggg agcagttgat tcagtaagac tgcgacaatt taatactgtt 120
acgcttgctt tgatacctga ctaaatgtga ctgagtgcaa caagcattta agaaaatttt 180
tagacagtgt tttgtttaga attcagggat catgcattct ttaatggtgc tgtttgtttt 240
ttatttcttt tctacaaaga aaacaagtgt tgcctacaaa agtgactgct cacaatacct 300
cgag 304
<210> 1155
<211> 194

<212> DNA
<213> Homo sapiens

<400> 1155
gaattcgcgg ccgcgtcgac attggatttt ggtccatagt tggaggctgt gttgttggaa 60
tagctatggc aaggtttgca gattttatca ggggtatgct gaaactaatt cttctcctcc 120
tgttttcggg agctacactg tcatccacgt ggttcaccct gacctgtttg aacagcatca 180
cacaccccct cgag 194

<210> 1156
<211> 537
<212> DNA
<213> Homo sapiens

<400> 1156
gaattcgcgg ccgcgtcgac gcttagaggt catctttcaa ggaggcatta aatatcaatt 60
ataaattatt aagtcagata aatatgcctg accttttcac agttgaaaaa atacattttt 120
tcccctctat caaatgccaa gtttttagtg gaaatgctaa tggcagtggg aaaggttgcc 180
tcactttcag agagactctc gctgtctgca cccttttaat aattgctctt cctggcaagg 240
ctgccacttc cctgcctccc cagctggcag tggggcaacc caggcctgtt tccagctacc 300
tgcaaagcca gacctagacc tgccgtagct gttgtcccat gcctaattct agttacagga 360
agccatccct gtaccctggg tccattcaca ggaatgggtt ccagaggagg ctgatagaag 420
ggtttgaaat gactggctgg atcccttcct gctcagacac agtggtagct ggagagcagg 480
cagagatggt agaattgcag gtttgaccac ctgtcgtgac cccagaagct actcgag 537

<210> 1157
<211> 580
<212> DNA
<213> Homo sapiens

<400> 1157
gaattcgcgg ccgcgtcgac cacttttaaa aaacaaaaaa agacaagaga gatgaaaacg 60
tttgattatt ttctcagtgt atttttgtaa aaaatatata aagggggtgt taatcggtgt 120
aaatcgctgt ttggatttcc tgatttata acagggcggc tggttaatat ctcacacagt 180
ttaaaaaatc agcccctaat ttctccatgt ttacacttca atctgcaggc ttcttaaagt 240
gacagtatcc cttaacctgc caccagtgtc caccctccgg cccccgtctt gtaaaaaggg 300
gaggagaatt agccaaacac tgtaagcttt taagaaaaac aaagttttaa acgaaatact 360
gctctgtcca gaggctttaa aactggtgca attacagcaa aaagggattc tgtagcttta 420
acttgtaaac cacatctttt ttgcactttt tttataagca aaaacgtgcc gtttaaacca 480
ctggatctat ctaaatgccg atttgagttc gcgacactat gtactgcgtt tttcattctt 540
gtatttgact atttaatcct ttctacttgt cgccctcgag 580

<210> 1158
<211> 397
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (27)

<400> 1158
gaattcgcgg ccgcgtcgac ctgccangtg gatgagaagt gattacctgt ggaaattcat 60
agtgttatct ttttatagca ttcatttaca aaggttggat ttatgtaggc cttttccttt 120
tgttctttat tgcagatatt caagagaagc ttatgtggag ttagttcacc atattagaga 180
atctattcca ggtgtgagcc tcagcagcga tttcattgct ggcttttgtg gtgagacgga 240
ggaagatcac gtccagacag tctctttgct ccgggaagtt cagtacaaca tgggcttcct 300
ctttgcctac agcatgagac agaagacacg ggcatatcat aggctgaagg atgatgtccc 360
ggaagaggta aaattaaggc gttcggagga actcgag 397

<210> 1159
<211> 198
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (30)

<400> 1159
gaattcgcgg ccgcgtcgac agattatatn acaatttata ttcaattcta gattctaagt 60
ttcttttggg caagaatatt tattttccct gtgtcaattc agggactcca ggaaacagaa 120
gctaagaaca gaagcaagtg ctggagattt actgagaggt tacacttgtg gaagatgaag 180
tgtagcggca tcctcgag 198

<210> 1160
<211> 186
<212> DNA
<213> Homo sapiens

<400> 1160
gaattcgcgg ccgcgtcgac attaaaggtg aagttctgca aatgggagag tgttcacagt 60
agatagctca gattgattga acacatttga ggaagagact cctgcatgag ataccagcat 120
ttttacaaat actttttatg tacattcttt attttgtcat tttgtcaacc ctctccccaa 180
ctcgag 186

<210> 1161
<211> 298
<212> DNA
<213> Homo sapiens

<400> 1161
gaattcgcgg ccgcgtcgac gcttggcaag gagactaggt ctagggggac cacagtgggg 60
caggctgcat ggaaaatatc cgcagggtcc cccaggcaga acagccacgc tccaggccag 120
gctgtcccta ctgcctggtg gagggggaac ttgacctctg ggagggcgcc gctcttgcat 180
agctgagcga gccccgggtgc gctggtctgt gtggaaggag gaaggcaggg agaggtagaa 240
ggggtggagg agtcaggagg aataggccgc agcagccctg gaaatgatgc aactcgag 298

<210> 1162
<211> 224
<212> DNA
<213> Homo sapiens

<400> 1162
gaattcgcgg ccgcgtcgac gccagttata gactgtccag catccaagac gtttcggtta 60
tgtcgggtcc tcagatcgcc tctgacttgt taccacaaca aatcattttg atttcagtgc 120
ctgttgggga cttgatttct tctcagtttt gtttgtttgt ttgtttcctt aatctggctc 180
atttgaaatt tcttctccct ctcaaccatc ccactaatct cgag 224

<210> 1163
<211> 314
<212> DNA
<213> Homo sapiens

<400> 1163
gaattcgcgg ccgcgtcgac cccatggcca ccctgtccta tgagctcacc agctccaccc 60
tggagatatt aacagtgaac actgtcaagc agacacctaa ccacatcccc tcaacgatca 120
tggcaaccac ccagcctcca gtagaaacca ctgttcctga gatccaggat agcttcccat 180
acctgctgtc tgaagacttc tttggacagg aaggccccgg gccaggtgca agtgaggagc 240
ttcatcccac cttggagtcg tgtgtggggg acggatgtcc tggcctcagc agaggccctg 300

tgatcgccct cgag 314

<210> 1164
<211> 219
<212> DNA
<213> Homo sapiens

<400> 1164
gaattcgcgg ccgcgtcgac gtaataaatt attcactgtt tcttttggta actgtgattt 60
aaaaaaagaa aaaagaaaaa aaagctttat acgttttagg ttgtgctttt gtaatagatg 120
aaaaaaggtg cgcttaaaaa gaaaatgtat gttttttttcc ccctttggat tttatttatg 180
ctggattggg gaaagttgca gaatgagcgc caactcgag 219

<210> 1165
<211> 174
<212> DNA
<213> Homo sapiens

<400> 1165
gaattcgcgg ccgcgtcgac atccctcagt gaacatttgg gttgcttcca ccttttaact 60
tgtgtagctt tttttggggg gatattttgg ctctcaaaag gacaaaggaa aaaattaggt 120
tcagttgcta ggattactca catgagggta ggcatgggca ggaccatact cgag 174

<210> 1166
<211> 221
<212> DNA
<213> Homo sapiens

<400> 1166
gaattcgcgg ccgcgtcgac gatacttatt gctgcctctg caccaatatg ctttccgaag 60
tgctgttgtt tctctctcaa tatttgacac tttgtggtga tatccaacta atgctggccc 120
agaatgcaaa taatagagca gcacaccttg aagagtttca ttaccaaaca aaagaagacc 180
aggagatcct gcatagcctt cacagagagt ccaccctcga g 221

<210> 1167
<211> 118
<212> DNA
<213> Homo sapiens

<400> 1167
gaattcgcgg ccgcgtcgac tgggttttca catgctattt caggcttgcc ttttttatct 60
gtatttcttc gtagcagttt gtcgacctga gaaatggcct cttcccagca atctcgag 118

<210> 1168
<211> 248
<212> DNA
<213> Homo sapiens

<400> 1168
gaattcaaca agaggcagtt ctttactaat caacatataa cttgaatacc tgggcaaaga 60
caaattattc aggtggacaa agaaataaat gaataaaagt gggattcaaa tttttgattt 120
cataagttcg gaaataagta atcaagaaac ctaactaata aaccacacaa tcactgattt 180
gcaaacttga acaccaaaga aaaagatatt ttatggtaac tatattcatt ttttttgttc 240
tccctata 248

<210> 1169
<211> 195
<212> DNA
<213> Homo sapiens

<400> 1169
gaattcgcgg ccgcgtcgac cagcctggaa ggtaatgcat gtccatggta cacaaattca 60
caaggtttgt aaatgagaaa agacgtgagg ttccttttgt tctttacctg tggcctccct 120
gccctacacg gggactctag ggtggaatgt agcaaagccc atccaccagc catgtactac 180
cccccccgc tcgag 195

<210> 1170
<211> 222
<212> DNA
<213> Homo sapiens

<400> 1170
gaattcgcgg ccgcgtcgac gtggtggaca gctgtagtga taatgttgat agtaggtata 60
ataacaccag tgttttattt gttgtattat gaaattttag ctaaggtgga tgttagtcat 120
cattcaacag tggactcttc acatttacat tcaaaaatca cacccccatc acagcagaga 180
gaaatggaaa atggaattgt gccaactaaa ggaatactcg ag 222

<210> 1171
<211> 314
<212> DNA
<213> Homo sapiens

<400> 1171
gaattcgcgg ccgcgtcgac tagaagaaac ccagaaattc agtcttttct gttttattgg 60
cagtggctag catgttctct gggtcaacta aagttcgaag caggcccata agctggactg 120
ctcctccaag ttcaggatct gtatcacaaa tcatatgttc tataatgagg ttgatgagca 180
aaatatcctt gctggttatt ttttgctctg ttaacttctt acttacatca tcattctgtt 240
gtgcctcctg catgacaaac tctcgtacca tggatggatt atattcaacc aagtatgaga 300
atatatcact cgag 314

<210> 1172
<211> 177
<212> DNA
<213> Homo sapiens

<400> 1172
ggaattcgcg gccgcgtcga cgcatttatt aaccagagta cttgtttgca attttttatc 60
tgtgaaaata ttttaaagct cttacaaaac ttaaattttt aaaaaatcag ctcaaaaatt 120
ttttccatgt tgttgggcat accactgctg tctctgcttt cggtttccca actcgag 177

<210> 1173
<211> 232
<212> DNA
<213> Homo sapiens

<400> 1173
gaattcgcgg ccgcgtcgac gtttggagaa cctgtgtgaa aatccatact ttagcaatct 60
aaggcaaaac atgaaagacc ttatcctact tttggccaca gtagcttcca gtgtgccgaa 120
ctttaaacac ttcggatttt accgtagcaa tccagaacag attaatgaaa ttcacaatca 180
aagtttgcca caggaaattg caaggcactg catggttcag gcccagctcg ag 232

<210> 1174
<211> 252
<212> DNA
<213> Homo sapiens

<400> 1174
gaattcgcgg ccgcgtcgac ccagactata tagttcaaag agaattccta tttttcgtta 60
ggtatgcaac aaaacaatgc agtttgtatt atatcgtatt ttgtattgta ttatatgatg 120
ggtctcactc tgttacccag tctagagtgc agtggcacga tcacagctca ctgcagcctt 180

gacctgccag tctcaagcaa tcctcctacc tcagcctccc aagtagctga gaccacaggc 240
actcaactcg ag 252

<210> 1175
<211> 464
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (13)..(14)

<400> 1175
gaattcgcgg ccnngtcgac gcatatactg ccatgtcaga ttcctactta cccagttact 60
acagtccctc cattggcttc tcctattctt tgggtgaagc tgcttggtct acggggggtg 120
acacagccat gccctactta acttcttatg gacagctgag caacggagag ccccacttcc 180
taccagatgc aatgtttggg caaccaggag ccctaggtag cactccattt cttggtcagc 240
atggttttaa tttctttccc agtgggattg acttctcagc atggggaaat aacagttctc 300
agggacagtc tactcagagc tctggatata gtagcaatta tgcttatgca cctagctcct 360
taggtggagc catgattgat ggacagtcag cttttgccaa tgagaccctc aataaggctc 420
ctggcatgaa tactatagac caagggatgg cagcaacact cgag 464

<210> 1176
<211> 170
<212> DNA
<213> Homo sapiens

<400> 1176
gaattcgcgg ccgcgtcgac ctttgggtat catatcctga atatatgaag ttcattaagc 60
actttctcct catctcccctt agaaggtcct ctttctccca gggtgggggt ggggaagagc 120
tgacaggaca ccctaagtcc atcctgattt tgcagaaccc aaggctcgag 170

<210> 1177
<211> 207
<212> DNA
<213> Homo sapiens

<400> 1177
gaattcgcgg ccgcgtcgac gtgattgtgt tttttaaaag ataagtaatt tgatgaactg 60
ttcttttgca gtcagaaaac actcacaaaa agacaaaaaa agttccacag tattatattt 120
catgtcagtt caggcctaaa atcctttgca aataagatgt ttataggctg gtcacaatta 180
acaatgttat tattggcaac actcgag 207

<210> 1178
<211> 163
<212> DNA
<213> Homo sapiens

<400> 1178
gaattcgcgg ccgcgtcgac attgaattct agacttgcct cttcctcctc ctctaccctc 60
acttctaatg actaggtaca tttctacctt gctttcaatt ctaccttgct ggtgttttcc 120
attagtcatt tttttcccat tgtctcttac cacacaactc gag 163

<210> 1179
<211> 313
<212> DNA
<213> Homo sapiens

<400> 1179
gaattcgcgg ccgcgtcgac caaagatgtg tacaaaattt tatcttttca gccctcaaat 60

attgattttg aacattattt tgcaaagagt actaagtggt tggttagttg agatagagga 120
atatgcagct tttgactatc tttcctttcc cgtcagtacc agctttcatg atacaatttc 180
ctcttatcac tttggtcaag aggtggggca gaaaattttg agttacagta tcattcgaag 240
agaatttatt tctgcctttc atgttatagc ccctaaggga tccaggaccc gaaaggccag 300
cttctccctc gag 313

<210> 1180
<211> 227
<212> DNA
<213> Homo sapiens

<400> 1180
gaattcgcgg ccgcgtcgac ggcatagata agtttatgga agacctaaaa gatatgctgg 60
gctttgctcc cagcagatat tactactata tgtggaaata tatttctcct ctaatgctat 120
tatcattgct aatagctagt gttgtgaata tgggattaag tcctcctggc tataacgcat 180
ggattgaaga taaggcatct gaagaatttc tgagctatcc actcgag 227

<210> 1181
<211> 253
<212> DNA
<213> Homo sapiens

<400> 1181
gaattcgcgg ccgcgtcgac atttgccaca aacgctgtta actggactca cacatactat 60
gtgtacctta atgatttatt tactctatgg acagttatta gaacatctgg tatgtggtca 120
cccgtgcgga gccaaggaga ttagggcgtg ggggctgcag tgtcagcctt cccgggagtg 180
cacggtccag ccagggaccg gggtcccctg ggagctgtgc ttcagaagct tactgactga 240
tgaaagcctc gag 253

<210> 1182
<211> 153
<212> DNA
<213> Homo sapiens

<400> 1182
gaattcgcgg ccgcgtcgac cttctatata actgaaatag ttccttgaac atttgataaa 60
gttttcctta gaaagaaact ggatttggtg cttcattagt aatagttaac tgatcacatg 120
ctaatttttc cctgttctct gtatttactc gag 153

<210> 1183
<211> 158
<212> DNA
<213> Homo sapiens

<400> 1183
gaattcgcgg ccgcgtcgac caggcatcca caaaagaaga ccaagctttg tccaaagagg 60
aagagatgga gactgagtca gatgcagagg tagaatgtga cctgagcaat atggaaatca 120
ctgaagagct ccgccagtac tttgcaaagt cgctcgag 158

<210> 1184
<211> 249
<212> DNA
<213> Homo sapiens

<400> 1184
gaattcgcgg ccgcgtcgac gtccaagtgc tccattatca tttgttacag gctattcttc 60
tactgaattg cttttgctcc tttgccaaaa gtcagataga tgtatttgtg tgggttggtt 120
gctgggtttt tgaattcttt tctgttgatc tctgtgtctg ttcctctgtc tataccacac 180
tgtcttggtt actgtagctc tagtgatagg tcttcacatc aagcaagaat gctcactgcc 240
cccctcgag 249

<210> 1185
<211> 151
<212> DNA
<213> Homo sapiens

<400> 1185
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc ctcgaggtga 60
taaccctatc tctaccaaaa aaagaaaaaa aaaaacaaaa aaaaacttag ctaggtgtgg 120
tggcatgcgc ctgtggtccc ggctactcga g 151

<210> 1186
<211> 267
<212> DNA
<213> Homo sapiens

<400> 1186
gaattcgcgg ccgcgtcgac gtttatttca cagcactgag gaggaccagc atgcattctt 60
ctcttaacac aagtccgaat caacaacctg acactaactt ggctcatgtt ggagctcaca 120
gttttgctac agaaaatatt attgggggat ctgaacaatg ttttgaacag cttcagccag 180
aatattcttc acaggaggag agccagcatg ctgatctacc aagtattttt agcattgaag 240
caagagattc ttcccaaggc actcgag 267

<210> 1187
<211> 230
<212> DNA
<213> Homo sapiens

<400> 1187
gaattcgcgg ccgcgtcgac cgatgacgac gaggaggaga agctcacccc agtgaggcca 60
ggggggttcg tggccgtgtt ctgtcccgtg aggctttttc ggcagacggg gcagctgtcg 120
tgctgctcca gccagggcac gatgcagccg tcgtggaaca ggtggttgca gggcagctgc 180
cgcacacgct cacccagcgc gtagtcgtcc ttgcacacag ggcactcgag 230

<210> 1188
<211> 184
<212> DNA
<213> Homo sapiens

<400> 1188
gaattcgtgg ccgcgtcgac cttgtagaga gtgacaaggt attgtttgtt tccctatgtg 60
ctgtttgagc agtattttaa ccaacttgta ttacagatgt tacagttcca tgttaggaag 120
tcagaaaaga cttgtgtttg tctttgttct gctgatgtgg agtcatgttt ggtggggtct 180
cgag 184

<210> 1189
<211> 201
<212> DNA
<213> Homo sapiens

<400> 1189
gaattcgcgg ccgcgtcgac ggtttagtcc tcaagaagtc ttggctatta aggggcactt 60
atccatacaa cctctacttt ttctaggcac taaaaggggg aaaaggctta atagccaaaa 120
tagttatcaa aagaccctaa agctggggtc ctgtacacca tgaaaggatt actttcattc 180
tcatgtaagg gactactcga g 201

<210> 1190
<211> 228
<212> DNA
<213> Homo sapiens

<400> 1190
gaattcgcgg ccgcgtcgac cttggagaac agacttaata tgatccagtc ttcctatttt 60
tatttatttt tggtacagat gggggtcttg tctctctgtg ttgcacaccc aggctcgtct 120
ccagctcctg gtgtgtccag aattggttcc ttccagtggg ttcttggtct cgctgacttt 180
aagaataaag ccgcggaccc tcgaagtgag tgttacagtt ctctcgag 228

<210> 1191
<211> 276
<212> DNA
<213> Homo sapiens

<400> 1191
gaattcgcgg ccgcgtcgac cgagttgatg gggtccttgg acatatgttt tttcaaaatt 60
tttgaagcct tttcaaattc tttgtttttg atacaaataa tgacagcagc ttccttgacc 120
agttttctac tggattcgac cactgcttct gtcagtgtaa attccgtttt aatcatctcc 180
agcacattga tagctgattc cagtggtgtg agctcagcct ccatatcaaa ggaacagtct 240
aaattttccc cttcttcaat ccgcgacaga ctcgag 276

<210> 1192
<211> 196
<212> DNA
<213> Homo sapiens

<400> 1192
gaattcgcgg ccgcgtcgac cagaacttta ttttagctct tttttaaaaa tgatttgcat 60
ggttagaaaa cggcgaggac agccagggga gggaagggcc tctagggaac tttgcacttt 120
ctataccttt gtactatgca ctgccctatt gattctacac ccaataatga tattacttga 180
acccatccac ctcgag 196

<210> 1193
<211> 315
<212> DNA
<213> Homo sapiens

<400> 1193
gaattcgcgg ccgcgtcgac ttcctcgatc atttcaaaga tgcctaaagc agatttctat 60
gttctggaaa aaacaggact ttccattcag aactcatctc tgtttccaat actgttacat 120
tttcatatca tggaagccat gctgtatgcc ttattaaata aaacttttgc ccaggatggg 180
cagcatcagg tgctgagcat gaatcgaaat gcagtgggga agcattttga actgatgatt 240
ggtgactccc ggactagtgg aaaagagcta gtgaagcagt ttctcttcga ttctatacag 300
aaggcggatc tcgag 315

<210> 1194
<211> 264
<212> DNA
<213> Homo sapiens

<400> 1194
gaattcgcgg ccgcgtcgac ccatcagtga aggaaccatc caaaactgct aaacagaaaa 60
ggagaactat aattctagga agtggtcaca aaggaaaagc tactattaga attggattgg 120
ctacaaagaa acctgtaagt agtggcagaa aacactccct tggtaaagaa tattatgcgc 180
ccgcacctct tccacctggt gtgtctggtt tcttgccgtg gcgtactgca gaacgtgcaa 240
aaagacacag gggtttccct cgag 264

<210> 1195
<211> 210
<212> DNA
<213> Homo sapiens

<400> 1195

gaattcgcgg ccgcgtcgac gaggatagca ggcgtaaata cctactgtaa tacaatgtca 60
ctgtgtttcc tctgcactgt tcccttccac ttcctcatcc tctttgtgac atggaagttc 120
attgtcatag cttcagcttc agaagctgtt tgtggcattt gtaggattca aactcatgga 180
aaattccctc ctcttccccc cccactcgag 210

<210> 1196
<211> 207
<212> DNA
<213> Homo sapiens

<400> 1196
gaattcgcgg ccgcgtcgac ccccccgcca ccctctgctc caagccaatc aaccagtcac 60
caagtcctat caatgctatt gctgaaattt ctcttgaatc catctacttc tttccacgtc 120
cacagccacc atcctacccc cagccttcac ctctcttttc ttgatgatgg catgacctcc 180
tacccagttt cccggcaact actcgag 207

<210> 1197
<211> 272
<212> DNA
<213> Homo sapiens

<400> 1197
gaattcgcgg ccgcgtcgac cgccccctac atttaccttc cttatatctc ccccgtcttc 60
ctctccatag atctcctccc atttcccctt ccatggtccc catcttcctt ctgaaatgtc 120
tactccttca tgttccttta tgtatgtctt ccaatctttc cttccatagc tctcatcacc 180
ttcatatatt tcttccatct ttctcctccc acctgcctcg ccctctgtat atacccccac 240
tctccccctt ttatatcttc tccacactcg ag 272

<210> 1198
<211> 263
<212> DNA
<213> Homo sapiens

<400> 1198
gaattcgcgg ccgcgtcgac cattgagaga gggaggaaag ttttatcatg acagaaatgc 60
tcatactctg aggatataat agagagtgaa tacttgaggg tagaattaat caaacaactc 120
ttcttgatgc tggatatttt agcctaaagg aaaatataat acatgagttt agcttttaat 180
gtttcaacag cttcactgat tgtccagaag tcattgtgtg cccactttcc tcatgtgttc 240
atctattgcc agtgttcctc gag 263

<210> 1199
<211> 343
<212> DNA
<213> Homo sapiens

<400> 1199
gaattcgcgg ccgcgtcgac ctcggcggct gagcgcgccc gacagcagct agaggcgctg 60
ctcaacaaga ctatgcgcat tcgcatgaca gatggacgga cactggtcgg ctgcttcctc 120
tgcactgacc gtgactgcaa tgtcatcctg ggctcggcgc aggagttcct caagccgtcg 180
ggtcagtgcc cggggaatgc acacccgcct ggtaatgtgg cggaacctta cgcaaggcat 240
ttccccttaa gggcctggct gcaacccttg ttttctgggg ctcgttttcg tggctcagag 300
gggcgggact gattctggcc tactttcctg acactcactc gag 343

<210> 1200
<211> 187
<212> DNA
<213> Homo sapiens

<400> 1200
gaattcgcgg ccgcgtcgac ccaagattct gttaggattt ctgtgcatat agtgtagtaa 60

agaagtatca ttcaggggtg aaaaacaaag agccgtttta atgatgttga gtacatttgg 120
ctgttttata gcctttttct tccctccccc aaagaattct gtttgcctaa ctcccaaaca 180
gctcgag 187

<210> 1201
<211> 261
<212> DNA
<213> Homo sapiens

<400> 1201
gaattcgcgg ccgcgtcgac ctgacctttg aagatatccc tggaattccc aagcaaggca 60
atgcaagttc ctccaccttg ctccaaggta ctgggaatgg cgttcctgcc actcaccctc 120
accttttgtc tggctcctct tgctcctctc ctgccttcca tctggggccc aacaccagcc 180
agctgtgtag tctggcccct gctgactatt ctgcctgtgc ccgctcaggc ctcaccctca 240
accgatacag cgcatctcga g 261

<210> 1202
<211> 280
<212> DNA
<213> Homo sapiens

<400> 1202
gaattcgcgg ccgcgtcgac cttgatccag cctgggtaac aaagcaagag cctgtctaaa 60
aaaaaaaaaa agccaggtta tttttgtttg ttttgttttg tttttccctt tctcagttac 120
tcattccttt tagattgaag gattgatgca tttatttatt tatttattct tttaccaagc 180
ctcattgact ttatgttttg agaagaggat tctgctaaat tcttgggatt attcagaggc 240
ttatacacca acaaagaaaa aagaaagcca acaactcgag 280

<210> 1203
<211> 155
<212> DNA
<213> Homo sapiens

<400> 1203
gaattcgcgg ccgcgtcgac aaaaaaaaaa agaagtactt cacattactg tcatcaaaag 60
tagattccac caccagagta tttgcaactt ggaatccagg ctgctaataa ttgttttggg 120
aggaaagcat gatagtgtta ggattcgcac tcgag 155

<210> 1204
<211> 307
<212> DNA
<213> Homo sapiens

<400> 1204
gaattcgcgg ccgcgtcgac gttttgttat ataggtaaat ctgtgccgcg gtggtttgct 60
gcccctatca acccatcagc taggtattaa tcgtccatct tttaaagctc actttaactt 120
ccacttttcc atgaagcttt tcctgatctt cctcctcctt ccatcctgga aaatccttgc 180
agtttgttct gcagcatcac acctagtgtc tagccatccc tactttgtcc ctacactttt 240
tgaattgctt accaacaact tagagaggga gctagagatt gttgctggcc attgctccaa 300
actcgag 307

<210> 1205
<211> 586
<212> DNA
<213> Homo sapiens

<400> 1205
gaattcgcgg ccgcgtcgac agagaaatga aacggaagag aaaaaaagga gtttctgccc 60
ttcagagaga gctcaactgc ctgtgtgttg ctcagcctcc cttccctgtt cacaaaaagt 120
caaagtcatc acctcaaact caaatctatt tttaaataag aaagaaggcc agtgaagagg 180

ggcaggcaag atgtggccaa ggaaggcatt ggggaaaagg taacatttgt actgggagtt 240
tggtagatga agaaggtaag aaggagaagt acagacagtt aaagatggca ttgaaattcc 300
agagtcccag aggaggagtt tgcagggaca gcaggtggca cttgatgagt tagaatttca 360
gatgtgatga gtttgaagca cctgggaggc atctaagtag acatgattac cagacacctg 420
gagctgaata agaggtcctg gagatattga tttagaggtg attgttctct catccatgta 480
tccattcatt cacccaggca agggaaatgt gtacagtacc tactctaggc aggccctatg 540
ctggatattg ggaatacaat gatgaacaaa acagatgccg ctcgag 586

<210> 1206
<211> 276
<212> DNA
<213> Homo sapiens

<400> 1206
gaattcgcgg ccgcgtcgac gcctcgatca ctgcatttgc acagggtgaa gtctgtgtgc 60
ggcaagttgg tgagggcctt cagcaggatc tgggcggtga ccgtggtctg aaagaaggct 120
gggttgaact ggtacagctt caggacagcc aggttggctt ccagatcata ggcattttcc 180
ttggcctgcg tctctacata gcgctccagg gtggccaggt tctcaggatt gtacctgtcg 240
ataccctcgt cgattgaatt ctagacctgc ctcgag 276

<210> 1207
<211> 218
<212> DNA
<213> Homo sapiens

<400> 1207
gaattcgcgg ccgcgtcgac attgtgttag cctgttccct gagctctctt cgtgatcaag 60
aagactgatc agataaatca agagacttgc ccaaaattac ctaggaaatc tgtagcagca 120
gcagaaccaa actccggtcc ttgctaaatc tagataccag gctagctttt ctatggaccc 180
agaattaacc catacaaatg tacaagctta tcctcgag 218

<210> 1208
<211> 398
<212> DNA
<213> Homo sapiens

<400> 1208
gaattcgcgg ccgcgtcgac ccgagcctca gttgtcttct ctgtgaggtg ggaatgccgg 60
tgaatcctgc cgctggcgtg gatgagaagt gaatgcgtgc tcggagctgc gagtgacagc 120
gggcaggagg cgcccaggga cacttggttt ctccagggct ggaaggcttc tagaaggttc 180
ctcatcaagg gaagtgtggc tgggggcgcc gtctacctgg tgtacgacca ggagctgctg 240
gggcccagcg acaagagcca ggcagcccta cagaaggctg gggaggtggt ccccccccgcc 300
atgtaccagt tcagccagta cgtgtgtcag cagacaggcc tgcagatacc ccagctccca 360
gcccctccaa agatttactt tcccatccat cactcgag 398

<210> 1209
<211> 456
<212> DNA
<213> Homo sapiens

<400> 1209
gaattcgcgg ccgcgtcgac agaagggatc actcccatta gggcctgctt tgcttatgca 60
tgtgtgtgca catgcatgta aaccagggac cttcagctca cggcctccag gcctgggcca 120
gttcttgctg ctcctgccgt ctccccgac tggctgtgtc ctgagtaact ggaacatgag 180
actgtatctg caggactggc cccatggtgg ccgagtcaga agtctgtttc ctgtgagtcg 240
ccaccgttca ctcagtcttg ccctcccatg ctttggagcc agtctggtgg ctcctgtaag 300
gttctcaagg ctggtggcag ctcagtctgg ggtcaggaca tgtcggggtc atgcgtttct 360
ggccctgaca taagctgtct ggcctctctg tgacatgatg aaattgaaat caatccacag 420
tccatgaaat tgtgacactc caccagatat ctcgag 456

<210> 1210
<211> 408
<212> DNA
<213> Homo sapiens

<400> 1210
gctcgaggtc catatggata atcttcaagg gtaaattcac tgagatgaac tgcaaactcc 60
cctttccaca tgcagcagca ggacatacat gtcctgatgg gtttgtgtaa ccctgccaga 120
atggctggca ggacaagtta actatcattc ccttcacaaa tcagtcagtc aggaaatccc 180
tacgtgggaa ggatcacagg gcctacaaag aggcagtgac agcaaaactt cagctgctat 240
tgaatctgaa tgcatttctg gttttttaac cagatcccca gcaagtaatt ttaacagccc 300
gtaaatgtag agtatgctag actatgagga cacagatgcc cagcccagtg tgggggtaa 360
gttctacact gcactgtcct tccacagggc ccctcagggt cactcgag 408

<210> 1211
<211> 389
<212> DNA
<213> Homo sapiens

<400> 1211
gaattcgcgg ccgcgtcgac attacaatta tcatgctcac acttaatagt atattctatg 60
tcctcttggc tgtctatctt gatcaagtca ttccagggga atttggctta cggagatcat 120
ctttatattt tctgaagcct tcatattggt caaagagcaa aagaaattat gaggagttat 180
cagagggcaa tgttaatgga aatattagtt ttagtgaaat tattgagcca gtttcttcag 240
aatttgtagg aaaagaagcc ataagaatta gtggtattca gaagacatac agaaagaagg 300
gtgaaaatgt ggaggctttg agaaatttgt catttgacat atatgagggt cagattactg 360
ccttacttgg ccacagtgaa acactcgag 389

<210> 1212
<211> 402
<212> DNA
<213> Homo sapiens

<400> 1212
gaattcgcgg ccgcgtcgac cccgcctcag cctccgaaag tgctgggagt acaggtgtta 60
gccactgcgc ctggcctcat tgtactcctt aacacaagaa gacttcaaca atgataagta 120
gttgtttata aggaagcagg atcattacca aaataaatcc tgctaaaaca acaggaatca 180
tgttttaaag cctagtttgc taatttttgc tagtaggata agagtgatcg taatatctcg 240
aacattacat agacacttaa aacctttagt tgtatttcat caaaaatctg ttcatacccc 300
acgttggttt caaaacatac tatgcttttt cttcgtgtta tttcctatat tcatttttgt 360
gtgtatgtgt atgtcacaaa tattgatatg cctgggctcg ag 402

<210> 1213
<211> 168
<212> DNA
<213> Homo sapiens

<400> 1213
gaattcgcgg ccgcgtcgac gagtgtgatg ggcgtgttct ggggcttcgt cggcttcttg 60
gtgccttggt tcatccctaa gggtcctaac cggggagtta tcattaccat gttggtgacc 120
tgttcagttt gctgctatct cttttggctg attgcagcaa acctcgag 168

<210> 1214
<211> 180
<212> DNA
<213> Homo sapiens

<400> 1214
gaattcgcgg ccgcgtcgac caaaaaagtc cttttgaaaa agttgatgat gatgattttt 60
acatcagaga atatctttag atcacgttta agagatgatt actgggtgta tgttagatag 120

caagtactgt ggatggttta agggtgaata ggaaatatct agatgttaag gggtctcgag 180

<210> 1215
<211> 506
<212> DNA
<213> Homo sapiens

<400> 1215
gaattcgcgg ccgcgtcgac cagcaatccc tccctaggtc aatcgctccc aaacccttaa 60
ccatgagact ccccatgaac cagattgtca catcagtcac cattgcagcc aacatgccct 120
cgaacattgg ggctccactg ataagctcca tgggaacgac catggttggc tcagcaccct 180
ccacccaagt gagtccttcg gtgcaaatcc agcagcagat gcagcagcag catttccagc 240
accacatgca gcagcacctg cagcagcagc agcagcatct ccagcagcaa attaatcaac 300
agcagctgca gcagcagctg cagcagcgcc tccagctgca gcagctgcaa cacatgcagc 360
accagtctca gccttctcct cggcagcact cccctgtcgc ctctcagata acatccccca 420
tccctgccat cgggagcccc cagccagcct ctcagcagca ccagtcgcaa atacagtctc 480
agacacagac tcaagaatta ctcgag 506

<210> 1216
<211> 173
<212> DNA
<213> Homo sapiens

<400> 1216
gaattcgcgg ccgcgtcgac gtaatttact aaggtttgaa atggtattct aacagtgagt 60
ccattgtctt gaggattaat ctgatttata agtaatactg atagacatat tttcgtacat 120
ctgagcagaa ataaatgcat gtttctagca tatgtaatat aaaaactctc gag 173

<210> 1217
<211> 287
<212> DNA
<213> Homo sapiens

<400> 1217
gaattcgcgg ccgcgtcgac gaacggtaat tacattgaga tttttaaaaa tatataaatg 60
cttaaaatta cagaagtaat aaaaagaatg gttttagaca aatcttatgg aaagtttttt 120
attttattct tttataatta tatttatgga tatttgtctt tattagtgta gtaatatatt 180
ttataacgct cataatttga actttcaggc taatgtacta taaatatttg tattacgcat 240
tactaccatc ccaaatgtac caaaacacgt ttagagagaa cctcgag 287

<210> 1218
<211> 327
<212> DNA
<213> Homo sapiens

<400> 1218
gaattcgcgg ccgcgtcgac cgatcttcat gaatgcaata tttatgatgt gaaaaatgac 60
acaggattcc aggaaggcta tccttacccc tatccccata ccctgtactt actggacaaa 120
gccaatttac gaccacaccg ccttcaacca gatcagctgc gggccaagat gatcctgttt 180
gcttttggca gtgccctggc tcaggcccgg ctcctctatg ggaatgatgc caaggtcttg 240
gagcagcccg tggtggtgca gagcgtgggc acggatggac gtgtcttcca tttcctagtg 300
tttcaactga atatcacaga cctcgag 327

<210> 1219
<211> 335
<212> DNA
<213> Homo sapiens

<400> 1219
gaattcgcgg ccgcgtcgac ccttgaggtg attcatcttc caggctctcc ttccatcaag 60

tctctcctcc ctagcgctct gggtccttaa tggcagcagc cgccgctacc aagatccttc 120
tgtgcctccc gcttctgctc ctgctgtccg gctggtcccg ggctgggcga gccgaccctc 180
actctctttg ctatgacatc accgtcatcc ctaagttcag acctggacca cggtggtgtg 240
cggttcaagg ccaggtggat gaaaagactt ttcttcacta tgactgtggc aacaagacag 300
tcacacctgt cagtcccctg gagaagaaac tcgag 335

<210> 1220
<211> 228
<212> DNA
<213> Homo sapiens

<400> 1220
gaattcgcgg ccgcgtcgac cttgatttat aactaaaata tttaaacata cggtgtgctg 60
gactccattt gtactcttac ccagggcctg caaatgttag gagctggcct gaccaaggga 120
ataaagatta cgaaaatgtt caccttattt tattttattt tattttattt ttttgagaca 180
gcgtctcgct ctgtcgccca ggctggaaag cagtggcaca atctcgag 228

<210> 1221
<211> 270
<212> DNA
<213> Homo sapiens

<400> 1221
gaattcgcgg ccgcgtcgac gtggtttaag acaaaaacac ataaacaagt tcagacaact 60
gattgtatga ttctgggaat tctttgcttt cctttccttc tccctcggca ccacctcctc 120
tccccaggcc tccctgtcgg gcatggggag gaggttggag ctcagcatct tgaggaatgt 180
gtcaagacag cccctccgct ccgcgctgca cggccagccg cctttgtccg ggaggacaga 240
cagaaacgca gcaaggcaca cactctcgag 270

<210> 1222
<211> 207
<212> DNA
<213> Homo sapiens

<400> 1222
gaattcgcgg ccgcgtcgac catcagcccg ccaagatggc gatgcaagcg gccaagaggg 60
cgaacattcg acttccacct gaagtaaatc ggatattgta tataagaaat ttgccataca 120
aaatcacagc tgaagaaatg tatgatatat ttgggaaata tggacctatt cgtcaaatca 180
gagtggggaa cacaccaaca actcgag 207

<210> 1223
<211> 345
<212> DNA
<213> Homo sapiens

<400> 1223
gaattcgcgg ccgcgtcgac ctccttgagc ccactgggtc atatgcgtgt caccacacgt 60
gaactagtgt ggtggctgcc tgcggacacc ctcctgttct gagccctggg cctgtgttct 120
tctcagacac tcccagactg aggggtggtg tgtggcgggt ggcagggtgg ctgtggagac 180
tggtgatctg gagcctggtg ctggcacctg gcctgagttt ccgtgggcag ctggcgggga 240
cctgtgctgc tgctgctgac tgtgggtggg cgggcggcgc ctgggagtgg ctcttgctca 300
ggaattgata ggaaccctaa cgactaggat acccccagac tcgag 345

<210> 1224
<211> 205
<212> DNA
<213> Homo sapiens

<400> 1224
gaattcgcgg ccgcgtcgac gctgattgag cctcttagat ctgtaggtta atatttttca 60

tcaaatttgg aaaatgcttg gccactattt attcaaaatt tctgccccag tctctctcct 120
ctgcttctgg gactccagtt atatacgtaa gaacactgaa tgttgtctac aggtcgtgga 180
ggctttgtac tcccatccac tcgag 205

<210> 1225
<211> 534
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (171)

<220>
<221> unsure
<222> (173)

<220>
<221> unsure
<222> (175)

<400> 1225
gaattcgcgg ccgcgtcgac gactcctgtg aggatgcagc actccctggc aggtcagacc 60
tatgccgtgc ccctcatcca gccagacctg cggtgagagg aggccgtcca gcagatggca 120
gatgccctgc agtacctgca gaaggtctct ggagacatct tcagcaggtg ntntnccagt 180
gccaagtacc ctgctccaga gcgcctgcag gaatatggct ccatcttcac gggcgcccag 240
gaccctggcc tgcagagacg cccccgccac aggatccaga gcaagcaccg ccccctggac 300
gagcgggccc tgcaggtccc tgagaactac ttctatgtgc cagacctggg ccaggtgcct 360
gagattgatg ttccatccta cctgcctgac ctgcccggca ttgccaacga cctcatgtac 420
attgccgacc tgggccccgg cattgccccc tctgcccctg gcaccattcc agaactgccc 480
accttccaca ctgaggtagc cgagcctctc aagacctaca aaatggggct cgag 534

<210> 1226
<211> 284
<212> DNA
<213> Homo sapiens

<400> 1226
gaattcgcgg ccgcgtcgac cttaatacag acgtaattac ctgttattaa aatattagga 60
aaatgaacat aagaaaaacg ttgagatcac tctcactctt gatgttgggc gtgggagggg 120
tgccagccgt cattccttgg ccggctcccct tgctcccgtg gaggaggggt gactccaccc 180
acctccccgg cgtgggtctc ttgagttcct cccggtttcc ccattcggaa cctcactgtg 240
atggaggctg tctctgcaag aagcatttcc tggttctccc tata 284

<210> 1227
<211> 236
<212> DNA
<213> Homo sapiens

<400> 1227
gaattcgcgg ccgcgtcgac gtgcgtgctc cttggtttgt tccacctgcc tcctcgcatc 60
ttcaatggca ctctccaact gccttgccag ggtcccacat tcccgtgttt tctcctccag 120
ccgcagctgg gactggtgga ttgcctcctc cctcttggca atcacctgta ggaactcgat 180
attctgggca ctggtcgcct ccagtttcct ctccagttca tccaccttcg ctcgag 236

<210> 1228
<211> 161
<212> DNA
<213> Homo sapiens

<400> 1228
gaattcgcgg ccgcgtcgac atttttggtg caagcctggg tcgtcttttc tatgcacatg 60
gggcagctat tttagaaaca cttggagtgc tttgtatgta gtcccgcatc ccatcttttt 120
catttgacat cacgtggtgg gaatttccac aacatctcga g 161

<210> 1229
<211> 237
<212> DNA
<213> Homo sapiens

<400> 1229
gaattcgcgg ccgcgtcgac gaaaaataat tagtgttata gtcttaagat ttgttttcta 60
aagttgatac tgtgggttat ttttgtgaac agcctgatgt ttgggacctt ttttcctcaa 120
aataaacaag tccttattaa accaggaatt tggagaaaaa aaaaaccctg gtttttttatt 180
tttgtatttt attattgttt acttcaaact ttgttttaca gcgtccccca gctcgag 237

<210> 1230
<211> 153
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (7)

<220>
<221> unsure
<222> (14)

<220>
<221> unsure
<222> (104)

<400> 1230
gaattcncgg ccgngtcgac ccaagatccc agtcacaatt atcaccgggt atttaggtgc 60
tgggaagaca acacttctga actatatttt gacagagcaa catngtaaaa gagtagcggt 120
cattttaaat gaatctgggg aaggcaactc gag 153

<210> 1231
<211> 217
<212> DNA
<213> Homo sapiens

<400> 1231
gaattcgcgg ccgcgtcgac atttgaatac catattattt ctttctattt gggtaatgat 60
cgggttaata ggatttctta cttacatagt aggtgtggaa aaggtgggtt ttacttattt 120
atttttttt agacagtctt actctgtcac tcaggctgga gtacagtggc gtgacctcag 180
ctcactgcaa cctccacctc ccgggttcaa gctcgag 217

<210> 1232
<211> 201
<212> DNA
<213> Homo sapiens

<400> 1232
gaattcgcgg ccgcgtcgac cggaatctcc tctgtgaatt ccacctgcct agttctcccc 60
tttcatcctc tctctcttcc cacatcatca aagaggaaaa gctctttgtt caaaaggaag 120
agaaaacgta aagcatctta ttttctttta aaagaatttt aaaccatgaa aaagatattt 180
ttaaagaaat tcacgctcga g 201

<210> 1233
<211> 160
<212> DNA
<213> Homo sapiens

<400> 1233
gaattcggcc aaagaggcct agagcttagt gtgtaaaatg ttgaggctct tcgttcaggt 60
catttctctg acagggacaa gactgtcgtt tcagcagctg cacgcgaagg ttggtgatct 120
tcatctcgag gcaggtctag aattcgaggt tctccctata 160

<210> 1234
<211> 330
<212> DNA
<213> Homo sapiens

<400> 1234
gaattcggcc aaagaggcct acttttggtc catgtaagtg ctacccgttg ctgggggagg 60
agtcatggtt tatttggaaa tgtcagttgc aatcatggtt ctgtcatttg actgcacagt 120
atcagaggag cctgttaacc tctctgtgcc ttagtttctt agcccatgaa agagatcatt 180
gcctgaccca gggactacct caagggcttt tgatgaggac aagtgacagt aggaagatgc 240
aagagccttt agtaccaagg ttctcaacac tgactacatg ctggaatgac tgtgaagctt 300
ttaaaaaatg ttagtgccca cttcctcgag 330

<210> 1235
<211> 493
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (15)

<220>
<221> unsure
<222> (107)

<400> 1235
gaattcggcc aaagnggcct agttgaagac gacaccacgg ctttgatgga atatcagata 60
ttgaaaatgt ctctctgcct gttcatccct ctgtttctca cacctgngta ttttatgcat 120
ttgtcctctc caatgtatat gcacagagag gcacaggcat gtggactgtt caggcagaaa 180
cttgtctaca ttaccatctg gactgcaaga gaatattata catttaaacc tgtcttataa 240
ccactttact gatctgcata accagttaac ccaatatacc aatctgagga ccctggacat 300
ttcaaacaac aggcttgaaa gcctgcctgc tcacttacct cggtctctgt ggaacatgtc 360
tgctgctaac aacaacatta aacttcttga caaatctgat actgcttatc agtggaatct 420
taaatatctg gatgtttcta agaacatgct ggaaaaggtt gtcctcatta aaaatacact 480
aagaagtctc gag 493

<210> 1236
<211>.381
<212> DNA
<213> Homo sapiens

<400> 1236
gaattcggcc aaagaggcct agataaatct tcatcatggg ggctctcctg tgtattgcag 60
gatagaataa agagtctgac tctgtttttt atcattgacc accgacaacg ttccagtccc 120
accaccctct atttccctct tgcccctcat ctgtgcaagc cttaactaag aaagcttgaa 180
ccatctctct cttggctcca gggggaagtt caaaccaagc aaacacaggt ccatgggtgg 240
gaatcttcac cctagctcac ttcctaacca taataaaaac ccaagccaca ttcagactga 300
cttgggtctc tgccttgcat tctccagaaa gccttattat gtgagtaata aacctttgca 360
taccccctgg ttctccctat a 381

<210> 1237
<211> 575
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (143)

<220>
<221> unsure
<222> (440)

<400> 1237
gaattcggcc aaagaggcct agggcttgaa ttatttaatt tgatccattt atttaattaa 60
aaaaaaaagg aaggggaaag aaatcatggc caaaaaaata ttatttaacc cccaccccac 120
ccccaaagct ctagccattc atntgagcat cacccacatc ccactcattg cctgatattc 180
ggatggtggc atactctgcc ccaggaaaac tgcctgaagg cacgggggca atgggtgcca 240
atttagctc tcagcaggtt agtcaaccag acaaactggt gggctaaagt ccagaaattc 300
tttccaggtt ttctgctcat tggctgagca catacaaact gtcataagcc tgtaaaattt 360
aaggggagtt ggggtggggc gtaagagcaa aaggacagca ggagaagaga aattacgggt 420
cacccaagtt tttcctgggn tagtggctct ggatatagat ttaaagagag gtcagagtaa 480
atggactcca ggtttcttat caaagaaaac tatccctcaa tgaggagctg agatgtgcca 540
tgcaagagag ttcttacctg caggttctcc ctata 575

<210> 1238
<211> 454
<212> DNA
<213> Homo sapiens

<400> 1238
gaattcggcc ttcatggcct aatcttggtg cactaattaa ggtcttcctt tctagaacca 60
aagaactaaa actttcagca gaatgtcaga accacatctt catttggcag acacacaatg 120
ctttgtttat tatttgctgt ttgctgaaag tgttcatctg tcagatgtca gaggaggaat 180
tacaacttca ttttacttat gaagaaaaat ctcctggcaa ttacagttct gactcagaag 240
atctttgga agaattgctg tgctgtttga tgcagttgat cactgatatt ccactcttag 300
atattacata tgaaatatca gtagaagcta tatcaacaat ggttgttttc ctttcctgcc 360
aactcttcca caaagaagtt ttgcgacaga gcatcagcca caagtatttg atgcgaggtc 420
catgtcttcc atacaccagc aatttctccc tata 454

<210> 1239
<211> 356
<212> DNA
<213> Homo sapiens

<400> 1239
gaattcggcc aaagaggcct acagacggcg acagtggcgg cggcgccatg gcagggcttg 60
caggatccct gctgccttgg tgatcccggg ctgacagcca gagagcacag cggctcagct 120
cctggagagt gagggttgaa gaaagcggag ggcagccgcc tgcgcccgct ggctcccatt 180
aggtcggttc ctgcagcggt gcccggcagc cttggtgaag gccctgcccg gcagagatca 240
tgtattgcct ccagtggctg ctgcccgtcc tcctcatccc caagcccctc aaccccgccc 300
tgtggttcag ccactccatg ttcatgggct tctacctgct caacgttctc cctata 356

<210> 1240
<211> 419
<212> DNA
<213> Homo sapiens

<400> 1240
gaattcggcc aaagaggcct acctggcccg tgtggtggag ggctggaacc ggcatgaggc 60

tgagcggaca gaggttctca ggggacttca agaggaacac caggcagcag agctcaccag 120
aagcaagcag caggagacag taacccgcct ggaacaaagc ctttctgagg ccatggaggc 180
cctgaatcgt gagcaggaaa gtgccagact gcagcaacgg gaaagagaga cactggagga 240
ggaaaggcaa gctctgactc tgaggttgga ggcagaacag cagcggtgct gtgtcctgca 300
ggaagagcgg gatgcagctc gggctgggca actgagtgag catcgagagt tggagactct 360
tcgggctgcc ctagaagaag aacgacaaac gctcgaggca ggtctaggtt ctccctata 419

<210> 1241
<211> 696
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (16)

<220>
<221> unsure
<222> (18)

<220>
<221> unsure
<222> (108)

<220>
<221> unsure
<222> (112)

<220>
<221> unsure
<222> (133)

<400> 1241
gaattcggcc aaagantnct aaagaaagct agtatttgta gttatcctat tctaaaaaac 60
tactattcaa ctaagacaac taagaaaaat atattccaat aaaaaatnta anattacatt 120
atgagggtga acntgactat ttaaacaatc tgtactttaa ttaattaatt aagaacccac 180
attagtaaaa aaaattttta aatccagatt agtattaggc ctcttttaga atttgtctag 240
caggttttcc agtttccacc agaaaaccat aaaaatactt atctattggg ttatcctgct 300
agacaaaaat cttagaaagc tctaacatta atctagagtt tttaaaaggg caaattgtag 360
aatctaaaga gcaggtatct gaatatgtct tctattcatg tgaatggcag gtgtgtatgg 420
caaacttttc tcttctccag gtgttttgtc ctgatcaacc cttgttttcc ttatggtcaa 480
atcagcatct tcagcaggca ctctgcacag aatcattggt ttcagaacat gatgccctgt 540
ttattcaaaa gaagagtctc attcagagaa acactaataa ttttggctaa atagctaata 600
ataattaact taaaaatatt tagttgtgac ttttatttaa acattaaaaa agagttaaag 660
caacatatga atatggtaaa aaatgttctc cctata 696

<210> 1242
<211> 247
<212> DNA
<213> Homo sapiens

<400> 1242
gaagctatca atttggatac cagtctggta tctgctctac ctcccttcac tcacaactga 60
cttggaacca ataaaggagg gagtgcgaat gcctatcttc cctctcaagt ttctccagac 120
tttactgcag cagcatgtgt cgctcctggc cctgctgtgc catccctctg cctcctcacc 180
acatctctca ctcatagact cagggcttcc ctctggtcag tactcccatg actccatgca 240
cctcgag 247

<210> 1243
<211> 349

<212> DNA
<213> Homo sapiens

<400> 1243
ggaatgtaag ctctatgagg gcaaggactc ttgtcttgtt tactgctgtg ttcttctagc 60
ataaacacac acaccccctt agaacaattc tggatacaca atagaaattc agcaaatgtt 120
tgggtgaatg aaatggccct aaaatactat tttaaaactt gttttctttc caggttatat 180
tttcttattt aatgtgtgta aaaatgtggt ggtatgaagt tttttggttt taaaaccttc 240
aatagtgagt ttttgtgggc acattgtatt cataagagct gttaattcta gccataactt 300
taaataaatg tattggttgc ttgtgtacat gactatctgt aaactcgag 349

<210> 1244
<211> 251
<212> DNA
<213> Homo sapiens

<400> 1244
ggagcccacc gagaggcgcc tgcaggatga aagctctctg tctcctcctc ctccctgtcc 60
tggggctgtt ggtgtctagc aagaccctgt gctccatgga agaagccatc aatgagagga 120
tccaggaggt cgccggctcc ctaatattta gggcaataag cagcattggc ctggagtgcc 180
agagcgtcac ctccaggggg gacctggcta cttgccccccg aggcttcgcc gtcaccggct 240
gcaaactcga g 251

<210> 1245
<211> 528
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (89)

<400> 1245
gcttggccat ggtcgcttcc tttttccaa tctctgtggc agtttttgcc ctaataaccc 60
tgcaggttgg tactcaggac agttttatng ctgcagtgta tgaacatgct gtcattttgc 120
caaataagaa cagaaacacc agtttctcag gaggatgcct tgaatctcat gaacgagaat 180
atagacattc tggagacagc gatcaagcag gcagctgagc agggtgctcg aatcattgtg 240
actccagaag atgcacttta tggatggaaa tttaccaggg aaactgtttt cccttatctg 300
gaggatatcc cagaccctca ggtgaactgg attccgtgtc aagaccccca cagatttggt 360
cacacaccag tacaagcaag actcagctgc ctggccaagg acaactctat ctatgtcttg 420
gcaaatttgg gggacaaaaa gccatgtaat tcccgtgact ccacatgtcc tcctaatggc 480
tactttcaat acaataccaa tgtggtgtat aatacagtat tcctcgag 528

<210> 1246
<211> 257
<212> DNA
<213> Homo sapiens

<400> 1246
gcaagaacat gaaacatctg tggttcgtcc ttctcctggt ggcagctccc agatgggtcc 60
tgtcccaggt gcagctgcag gagtcgggcc caggactggt gaggccttcg gagaccctgt 120
ccctcacctg cgctgtctct ggtgacccca tcagttctta ttcctggagc tggatccggc 180
aggccccagg gaagggactg gagtggattg gcactatcta taccactggg aatatcaacc 240
acaatccctc cctcgag 257

<210> 1247
<211> 162
<212> DNA
<213> Homo sapiens

<400> 1247
gaattcgcgg ccgcgtcgac gtaagcaata tttagtttaa aggcatttac aagtcatata 60
acttaatcat tttaaatgaa tggtgtgaat acaagcagct tttcttttt tttaatttta 120
tttctgttta gtatttctga ttacgtaaca ggaagtctcg ag 162

<210> 1248
<211> 234
<212> DNA
<213> Homo sapiens

<400> 1248
gaattcgcgg ccgcgtcgac ccagcatttt gttcctttct atttcaccgc tgctcagtaa 60
caacctacac ttcacttttt gatgccattg tcattcactc attcattcat tatttgctca 120
ttcattttgt tcaacaatga aaccaatgct caagcagatg gaggtggctg ggtgcagtgg 180
ctcacacctg taatcccaac cctttgggag ggcgaggtgg gcagatcact cgag 234

<210> 1249
<211> 156
<212> DNA
<213> Homo sapiens

<400> 1249
gaattcgcgg ccgcgtcgac tttccctttt atgtgtaatc ctttgttttc ccggagtcac 60
tacgtcttag tgtcttgttt gctcagtttc ctatgtatct atcacaaatt cagcccagac 120
cctgatagaa gtgtgaatct caacacattc ctcgag 156

<210> 1250
<211> 203
<212> DNA
<213> Homo sapiens

<400> 1250
gaattcgcgg ccgcgtcgac agaacagtca gtttaccaag gaaggccatt atctttgact 60
tgcaaagctt ttacagccaa acattgtttg cttacagttc tttaatacaa atgaagacct 120
taatggtaag aagagtccta ttactactcc ctttgtacat ggaggtcatc ccaataaaga 180
aaggacgatg tcacgctctc gag 203

<210> 1251
<211> 175
<212> DNA
<213> Homo sapiens

<400> 1251
gaattcgcgg ccgcgtcgac gagaactgct gctttgtctt cctgtgttag tgagaccagt 60
tgtgtgttat cagatagtct agactttcaa cagcagttat aagtgcccca gttttctcct 120
tactggttat tccttagagt ctaaggtggt gtattaataa atgaggtggc tcgag 175

<210> 1252
<211> 129
<212> DNA
<213> Homo sapiens

<400> 1252
gaattcgcgg ccgcgtcgac cctcgattga attctagacc tgcctcatcc cagcctttgt 60
tttattatca tccattttac atcatcatat gcgataaacc ccaaaatgca ttgtcactac 120
ttactcgag 129

<210> 1253
<211> 178
<212> DNA

<213> Homo sapiens

<400> 1253
gaattcgcgg ccgcgtcgac aaaaaagaga aactacttta ttgatgtttt ttcctcctga 60
gcccctgctg gtcttattga atgtgtcacc ttgtattata attgttttta tttgtcactg 120
ttgtcatact gcctactctt taccctcttc ccacatacat acacaaatgc tactcgag 178

<210> 1254
<211> 456
<212> DNA
<213> Homo sapiens

<400> 1254
gaattcgcgg ccgcgtcgac gcttcggcga tgggctcgtc actcgggtcg taatactgct 60
ccaggggcca gttacaggaa ggtaaccatt tacagccaga aaaggttaaa tatactcttt 120
tcattgtttt cagaaaatgt ataaaggtcc aatttgtaac agcaaggttt tcaaattaag 180
acaattcgta tagagtagca attgctgcac gaagtaaagt cttttttttt tttttttaac 240
atttgtcatt taagaaggct gccctgcggt attcataatt cattgtttac cacaaaggtg 300
gttcataaat ttaagcttta aaaacgatct gtaagttgat actttggctc tttggagctt 360
atttcattaa gaaattttcc ttgattgacc tcagggcagc tggggcactc caaggggcta 420
tggcgataaa aagctcaatt ggtaaagaca ctcgag 456

<210> 1255
<211> 205
<212> DNA
<213> Homo sapiens

<400> 1255
gaattcgcgg ccgcgtcgac gtgcctctaa aattaaatat ttgggatctt ttgattagtt 60
ctggatgcat caaataagca taactaaact attctttttt tgtttgtttt tgagacggag 120
tcttgctcag tcgcccgggc tgaagtgcct cagctttctg agtacctgtg actacatgtg 180
tgcaccacca tgcccagttc tcgag 205

<210> 1256
<211> 271
<212> DNA
<213> Homo sapiens

<400> 1256
gaattcgcgg ccgcgtcgac ggaatctagt tgcctaagga taaactgagt ttgacttcat 60
tagtgcacaa atgataggtt tgtgtagagt tattatagca ttaatcaatt tgatggattg 120
gaaatatgac agaactgaag cagcatgtaa tattagtgcc tattattctg gaaattatgt 180
cttcacctac attcatgtgg cagaggagtc atgttgtaca tcaagaaggc agaacttaaa 240
gaaacaaaca acagagggca tcttactcga g 271

<210> 1257
<211> 245
<212> DNA
<213> Homo sapiens

<400> 1257
gaattcgcgg ccgcgtcgac cttacatttg cttagggttt tcccaagatt cataggcctc 60
ttgtctttat gcatctaata atatcatcta ctgctacaac tttaaccatc ttttcaacac 120
tgatgattct ccctctgctc tgtcctttca gtactgcttt tctcctgaac tccagaccca 180
tatctcttgc tgcttgcaag cagtttattc tgaatcccct tgactccaca actggtccac 240
tcgag 245

<210> 1258
<211> 217
<212> DNA

<213> Homo sapiens

<400> 1258
gaattcgcgg ccgcgtcgac caccatccta ctggagaaag catactttta tgctaagatc 60
ttactttaag cttttttatgt gaacaaaaga tgtacatata gtaagtatta cttccgtagt 120
cctcaaattt actataactt ttgtacttag tatatgtttt atatttggaa aacagcacta 180
cgcttagttt tcctgtagtt cctgagtgat gctcgag 217

<210> 1259
<211> 156
<212> DNA
<213> Homo sapiens

<400> 1259
gaattcgcgg ccgcgtcgac atttctgctc attgtttcca ttctgcaccc catttttctt 60
gtttttttcc tgagattatt aggaatgttt tatcataggg tattattaat tttctcttta 120
gtggcctctt tatcacattg tcacattatc ctcgag 156

<210> 1260
<211> 432
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (22)

<220>
<221> unsure
<222> (24)

<400> 1260
gaattcgcgg ccgcgtcgac ancnagatgg aggattcggc ctcggcctcg ctgtcttctg 60
cagccgctac tggaacctcc acctcgactc cagcggcccc gacagcacgg aagcagctgg 120
ataaagaaca ggttagaaag gcagtggacg ctctcttgac gcattgcaag tccaggaaaa 180
acaattatgg gttgcttttg aatgagaatg aaagtttatt tttaatggtg gtattatgga 240
aaattccaag taaagaactg agggtcagat tgaccttgcc tcatagtatt cgatcagatt 300
cagaagatat ctgtttattt acgaaggatg aacccaattc aactcctgaa aagacagaac 360
agttttatag aaagctttta aacaagcatg gaattaaaac cgtttctcag attatctccc 420
tccaaactcg ag 432

<210> 1261
<211> 188
<212> DNA
<213> Homo sapiens

<400> 1261
gaattcgcgg ccgcgtcgac ggtaagtgac tttggaaagt ggaatagagt aagggggatt 60
cagaattgtt gaggatagag gttgcaattt aaagtgaggt atactgggtg gagtatcctt 120
gagagagtga tatttaggaa aaatttaacg gagaagtaac catgttaata actggggcag 180
ttctcgag 188

<210> 1262
<211> 161
<212> DNA
<213> Homo sapiens

<400> 1262
gaattcgcgg ccgcgtcgac ttaaagttta agtgatacta aattaagtca ctgttccctt 60
gcttaaaact gttcagtgct ttccatttca ttgagaataa aattgaagct cttttcatgg 120

tctctaatat tctacataga cttacccttg tatacctcga g 161

<210> 1263
<211> 209
<212> DNA
<213> Homo sapiens

<400> 1263
gaattcgcgg ccgcgtcgac aaataaccct tcaacaagtt aaattgcctc taggatttgc 60
tttctccaga ttaaattatc ccaaagtctt ttctttttc tcataaaggc cttttcaaaa 120
agaaacattg gttactttta aaatttcttt ttctagctct ttataaaact ttattctttt 180
cataaatgta ccacaggata ctcctcgag 209

<210> 1264
<211> 323
<212> DNA
<213> Homo sapiens

<400> 1264
gaattcgcgg ccgcgtcgac gagagtggca tgcatgataa aattcaaggc agcagtacac 60
ctctgggaca gtctgtagca gttccctaat ctacctgtat ccatgagcgc agataggagt 120
gaagcctcct aggcttccag tctgcagcat ctctgtcaca tggaaacctg atgggtgcct 180
ctgtgagggg ggccaattat gcacagtgca cactaaacac agatcatttt agccttccta 240
attagccact aataaaaaga cactgaagta agtatcctga agatcaaaga gagatttcca 300
ccatgcctca ataactactc gag 323

<210> 1265
<211> 220
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (188)

<400> 1265
gaattcgcgg ccgcgtcgac atttaatata cactcttggt actttacaat cagtcactgc 60
tccctatgga atttcatagc tcacttttat aacagacatt ggtaaaataa gaatctattg 120
ttaaagtact catctaaaat attttaatac tcattggagt gatttttgct agcaaagctt 180
aaaaattnac ataatgcttt gtttcaccct gatcctcgag 220

<210> 1266
<211> 289
<212> DNA
<213> Homo sapiens

<400> 1266
gaattcgcgg ccgcgtcgac cagtgataaa aacagtctct taattaaact tgtccgaatc 60
ctcctataac ttggtaattt taggcaatat agtctcccct cagtgttcat gagagattgg 120
ctccaggaca cccctcatac caaaatcctt ggatactcaa atcccttata taaaatagtg 180
tattatttgc atataactta tgtaccttct cctgtatact ttaaatcatc tctagattac 240
ttataatatt aatggtaaaa ccacaattac ttctgcacca actctcgag 289

<210> 1267
<211> 243
<212> DNA
<213> Homo sapiens

<400> 1267
gaattcgcgg ccgcgtcgac tgaatataaa tttttttata gcatgttaat tgcttataca 60

aaaaagttaa taaaagatag gttttttttt aagtatattt ttctaaaaga ggaagattgg 120
gtttttttgt ttgttttgtt ttattttttt tctttttttg agacagggtc tggctctgtc 180
atccaggctg gagtgcagtg gcattatctc agctccctgc aacctccacc tcccgagctc 240
gag 243

<210> 1268
<211> 152
<212> DNA
<213> Homo sapiens

<400> 1268
gaattcgcgg ccgcgtcgac gggctccaga aaaccagggg gactcaaaac agaatgaaac 60
tgcaaacatt cgttttattt gctattttta aaaatttggt aatatggccg ggtgcggtgg 120
ctcacgcctg taattccagc actttcctcg ag 152

<210> 1269
<211> 192
<212> DNA
<213> Homo sapiens

<400> 1269
gaattcgcgg ccgcgtcgac ggttttatga acatttattt agccgttgta ttgtggttgg 60
ggattgtata ccatgctttt tatttgtatt tatttttac ttcttttaga gacagggtct 120
cactctgtca cccagtctgg agtgcagtgg tgtaatcata gttcagtgca gtctcgaact 180
cctgggctcg ag 192

<210> 1270
<211> 384
<212> DNA
<213> Homo sapiens

<400> 1270
gaattcgcgg ccgcgtcgac attaagcatg acatatcctt catatgatca ctcatcttga 60
gttaattaga aaatacctga gttcacgtgc taaagtcatt tcactgtaat aaactgacta 120
tggtttctta agaacatgac actaaaaaaa aagtggtttt tttccaccgt tgctgattat 180
tagacagtag gaaatagctg ttttctttag ttttacaaga tgtgacagct ttagtggtag 240
atgtagggaa acatttcaac agccatagta ctatttgttt taccactgat tgcactattt 300
tgttttttta acagttgcaa agctttttaa tggcataaaa gtataattga aatctgtggt 360
atttatttac aaacatgtct cgag 384

<210> 1271
<211> 173
<212> DNA
<213> Homo sapiens

<400> 1271
gaattcgcgg ccgcgtcgac ggtggctgcc cctgtcccag cccgcaacac cccctgctcg 60
gcgtcctccc gcccgggtgc tcttgggtgg ttgccccgag aggcgcacgg ccgcctggtt 120
cgcgggggag cgaacgggag gccggggaat gcgaaccggc gcaaactctc gag 173

<210> 1272
<211> 228
<212> DNA
<213> Homo sapiens

<400> 1272
gaattcgcgg ccgcgtcgac caacctcctg ctgtccatgt atttcttcgt gctgggaatc 60
ctggccctgt cccacaccat cagccccttc atgaataagt tttttccagc cagctttcca 120
aatcgacagt accagctgct cttcacacag ggttctgggg aaaacaagga agagatcatc 180
aattatgaat ttgacaccaa ggacctggtg tgcctgggcc cactcgag 228

<210> 1273
<211> 407
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (24)

<400> 1273
gaattcgcgg ccgcgtcgac cgcncattta tgatttggaa caactaggtt ttatataaga 60
tacaaaaatt aaacaaagga tttgtgcatt gcaaaaagct acaaggaggt ccaaagcagg 120
aagttatgca aaacatagca tttgcccctg actgggagtg cagggaagat gtggaagagc 180
agagaggaag agaaggaggc tagggttagg tacctactca agaaggttga agggaattgt 240
ggaaggagag gggccggtgt cctgctcctg ctgtcaaact ctagaacctt gtggggctgc 300
tgtgatccca cagagaacgt gaagagggct cccagttccc tatggccagt gccaagctgc 360
aagtacatta gggagtatct ccaaggcttg tgggtgggga actcgag 407

<210> 1274
<211> 171
<212> DNA
<213> Homo sapiens

<400> 1274
gaattcgcgg ccgcgtcgac gagagatttt tacttatata atagtcctag agtttgcagc 60
tggtaaaacc agaggctaca tccagtatta ctgctaagag acattcttca tccaccaatg 120
ttgtacatgt atgaaaatgg tgtactgtat actttaacat gcctcctcga g 171

<210> 1275
<211> 274
<212> DNA
<213> Homo sapiens

<400> 1275
gaattcgcgg ccgcgtcgac cttgaattgc ctttagagca ttgtgtccgt ggtttcaatt 60
gtatcacaga atgttacaca gactgaagtt aagtggttac tttttgtcag gggttatctt 120
atttttctcc attcagttta acatgtgtac tgcaaaagac agtatttttg gaaatgaagg 180
catagtcttt catttaaaca tgcatcagag ggatttcact aatgaaagca ttcaaatcat 240
gtgcctagtt cttgtttcta gcagcccact cgag 274

<210> 1276
<211> 163
<212> DNA
<213> Homo sapiens

<400> 1276
gaattcgcgg ccgcgtcgac cctgattcca aagggatatt tctgcgacac ttacaatgaa 60
attccaacct ggcaccatct ttttcactgc agaatgcatg aaggtggttg catcatgtca 120
tttcgacatg catttaaatg taatgaaagg cacacagctc gag 163

<210> 1277
<211> 254
<212> DNA
<213> Homo sapiens

<400> 1277
gaattcgcgg ccgcgtcgac tcttgagata atttaatgta aatctgtatg gtgtgttttt 60
ttttaatatt tcgtttttat cttttgattg gctgtgttta cagtgaacat ttcctctact 120
ggataactat gtgtaaattg ccattaggga tttataagcc tttacaacca gttttaggcc 180
aggaaatgtc cacagagttt gaagttttct ccttagggaa gttgttatgt tgctatagta 240

agggagtact cgag 254

<210> 1278
<211> 181
<212> DNA
<213> Homo sapiens

<400> 1278
gaattcgcgg ccgcgtcgac cgattgaatt ctagacctgc ctcgagtgat ctgcctgcgt 60
tggcctccca aagtgctgtg attacagacg tgagccactg tgtctgtctt gtctctgata 120
tttatatgcc attatgtggc ctctactgcc ttaggattct aatgttccca ctaagctcga 180
g 181

<210> 1279
<211> 179
<212> DNA
<213> Homo sapiens

<400> 1279
gaattcgcgg ccgcgtcgac ccatcccttg tatttctagc tgtttttttt gtttttttct 60
aggtgttttt tgttttttta agcttctaag tgaatcaact aatataattc ttaagagaat 120
tagctgtaaa gatattcata ccattgctct tcagacacat gcagctagtg ctacttgtc 179

<210> 1280
<211> 239
<212> DNA
<213> Homo sapiens

<400> 1280
gaattcgcgg ccgcgtcgac aaacaaacaa aaaaagcatt tcttggagag aagaagcatg 60
tacagatgag caagtggaga ctaaagatgt ttgagtggat gagtagacag gtgaacaggc 120
gggcatttgt ttttattatt gttacttatt tatttttaaa ttttcttttt ggatgctccc 180
tcaccccccct cctccttccc caggcaggta tttcgataga taaaggatgg gtgctcgag 239

<210> 1281
<211> 213
<212> DNA
<213> Homo sapiens

<400> 1281
gaattcgcgg ccgcgtcgac gattttagaa gctatagaca ttgtttaaga taactaagaa 60
tacttggcta agaagtataa tttgctaact attaaggact ttcttttttt aatgttgtac 120
actattcttc ctactctttt ttggttttgg ttttgttttg tagagactgt ctcactatgt 180
tgcccaagct ggtctcaaac ccctaatctc gag 213

<210> 1282
<211> 148
<212> DNA
<213> Homo sapiens

<400> 1282
gaattcgcgg ccgcgtcgac atttggactt gtacctgata agcaagctca ggaattaact 60
tggtagccac cacaaaacct aaagaaagtt aggcttagaa gtgcaactta atcacaattt 120
agattttaac acacacgcat ttctcgag 148

<210> 1283
<211> 186
<212> DNA
<213> Homo sapiens

<400> 1283
gaattcgcgg ccgcgtcgac gggaatcagg gaaaggctgc ctctttggta tctcaactgg 60
tattgattat tgctatcaac tatttgggga gaaaaaatca aaatgaagcc ctgtcaaatt 120
ttagaagtac tatctttggt ccttcaaaca ctttgtgatg acaccttaag aaaaacaaag 180
ctcgag 186

<210> 1284
<211> 222
<212> DNA
<213> Homo sapiens

<400> 1284
gaattcgcgg ccgcgttgac tgcagttgtc gccaaacttg ggtattcatg gaatttctag 60
taaatgaaat acctatactt tgatactgaa gactgccaaa tacataggaa ttttcttttct 120
taaaaaacag taatgaagac tatatctcct ttcccagcac tgaatgtttt actagcactg 180
ggtgctcacc atgcaactga agaaaatgtg aaatctctcg ag 222

<210> 1285
<211> 190
<212> DNA
<213> Homo sapiens

<400> 1285
gaattcgcgg ccgcgtcgac ggtgtacgga tatttttctc aaattatcta ttttgttgat 60
gttttttgta cccattctgt tgtgtttgct tttattaatc tataatatca tctgcttcaa 120
tatggaacac cccacaggtg caggtctgag gtgctccctg ttggcagctc ctaaagagaa 180
gcagctcgag 190

<210> 1286
<211> 177
<212> DNA
<213> Homo sapiens

<400> 1286
gaattcgcgg ccgcgtcgac attgtacatg cttctggact tgctttttcc cttagtgtac 60
cttggggaat ttgccttgat atatggagag atgcagctgc tttgtttcat gttttgcttt 120
ttttttgga cagttggaca tgcgtgtccc aagtgtgttt atttagccga tctcgag 177

<210> 1287
<211> 293
<212> DNA
<213> Homo sapiens

<400> 1287
gaattcgcgg ccgcgtcgac caaaaaaaat gctagagtaa gaaatcagag gaatgggaaa 60
atgaggggtg gattaaatga aatacgcata aattactata caaaatgcct gcagtgaaag 120
cccgttgaat ttgttgagat agattgcaaa ttttacttta gtcttcccag aagtcacggt 180
aaagaagggt acagaagtat tgtgtattca aaatccaaag tgcctttggg ataaaagtaa 240
ataggtcatt caggagaagg acatgttttc ttaattctaa aagctgactc gag 293

<210> 1288
<211> 277
<212> DNA
<213> Homo sapiens

<400> 1288
gaattcgcgg ccgcgtcgac ctaaatttaa gtatgcagtt ctctttttgc tgggtttatt 60
cgtgctggtt catcgtgagt aagaagcctg ccttgctgtt cctgggaaga tgccatagtt 120
ttcgttactg gatgtttgga gtagatactg gtctgtgatt ggtggaatgg agaacacacg 180
tgttggtgct tctgggtagc actggtttgc attagtttat gtttccatgc cagagtttgt 240

gtgggcgggc gcatgtgcac cacagagtgc actcgag 277

<210> 1289
<211> 266
<212> DNA
<213> Homo sapiens

<400> 1289
gaattcgcgg ccgcgtcgac aggagctatg cctccaaggt ggctccttac acccatataa 60
atgtgggatg gaatctgaga ccttagaagg gcccttcggt gtaaactctg aaggttagtg 120
ccagaaggag gtggtcaact tcctaagtgg cctggggtca agatcatttt cacctagaaa 180
gacaccagac tatagaaatc taggcaatga caaactgcta ccattttcct catatgattt 240
tttttcaggc agcttgggga ctcgag 266

<210> 1290
<211> 139
<212> DNA
<213> Homo sapiens

<400> 1290
gaattcgcgg ccgcgtcgac caagaattta tattttttat tttttaaaat taaaaataat 60
ttatatttcc tctgttgcat gaggattctc atctgtgctt ataatggtta gagattttat 120
ttgtgtggct atcctcgag 139

<210> 1291
<211> 154
<212> DNA
<213> Homo sapiens

<400> 1291
gaattcgcgg ccgcgtcgac gagagagtgt actttatcct cacaagtcta ttagtgcata 60
ttaaatcata atgaaagcaa tccttggcca ggtgcagtgg ctcatgcctg taatcacagc 120
actttgggaa gcggaggcag gcagatcact cgag 154

<210> 1292
<211> 269
<212> DNA
<213> Homo sapiens

<400> 1292
gaattcgcgg ccgcgtcgac gtaaatgctt attagttaac caggcaggtt taaccacgtt 60
attatagaaa ctctaagagg tttcacatgt gttttttttt tgttttgttt tgtttgtttg 120
ttttgagatg gagtctcgct ctgtcaccca ggtgggagtg caatggcgtc gtcttggctc 180
cctgcgacct ctgcctcccg ggttcaagca gttatcctgc ctcaacctcc caagtagctg 240
ggattacagg cacccgccaa ccactcgag 269

<210> 1293
<211> 207
<212> DNA
<213> Homo sapiens

<400> 1293
gaattcgcgg ccgcgtcgac gctaatggcc gtttgcatct gtgtcttcaa acagatcctg 60
gttacagcca ttttgtgtga ttcacttcgg gggttaagta atgcaggatt ctgcaaacaa 120
ggtgtcgccg tccaaatgta ctgtcctggc atagagagca ctgctttgtt ttccactgtt 180
gtagagaaaa ctagggagaa gctcgag 207

<210> 1294
<211> 225
<212> DNA

<213> Homo sapiens

<400> 1294
gaattcgcgg ccgcgtcgac atttcagtgg tatttttatt ttctactccc tattccttta 60
gcttgtttca gatttaaatt gttcctcatc ttctagtatt ttaaggtcaa aggttaggtt 120
attgatttga catccttctt gtttgtcaat gtaaatattt acagttataa attttatctt 180
tagatgcatc aaaacaaaat gtattggcaa agagtcatac tcgag 225

<210> 1295
<211> 197
<212> DNA
<213> Homo sapiens

<400> 1295
gaattcgcgg ccgcgtcgac taacaatatt gattcttcca atccatgaac atgggatatc 60
tttccatttt ttgtgtgtct tcttcattta ttttatttat ttattttttt gagatggtgt 120
ctagctctgt cccccatgct ggagttcaat ggcatgatct cagctcactg caacctctgc 180
ctcctgggtt gctcgag 197

<210> 1296
<211> 171
<212> DNA
<213> Homo sapiens

<400> 1296
gaattcgcgg ccgcgtcgac ctgactttic tacatatgct ttatcaacct cttaattaaa 60
ccatcattgt ctattttgag agataactgc gctgcttccc attgtgtgtt ttaaatgtta 120
ttgttcagtt tgagtcaaat aaaaggatat ttaatctatg gtggcctcga g 171

<210> 1297
<211> 253
<212> DNA
<213> Homo sapiens

<400> 1297
gaattcgcgg ccgcgtcgac cgagttgtgg aattgtcaag gatgtcacac agtggacaga 60
aagtccaagc gagggagggt ctgacccagt gctgatggag attagtggtg ggtgtctggt 120
atgaggatct actgcactga caagggtgtc ctacagagtg gagtgctgtc atatggcctg 180
ggacgggaga ggcccaagca cagcaaggac atcgcccgat tcacctttga cgtgtacaag 240
caaaaccctc gag 253

<210> 1298
<211> 170
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (32)

<400> 1298
gaattcgcgg ccgcgtcgac ctgcttttta anacaacaaa caagaacaac aacacaaaac 60
tggtaatgat ttggagtaat catgcgggca tattgagtct gggtagtgtt tcgctggtgg 120
tagagtggtt gagacttcct gggaggactt tttccgcctc cactctcgag 170

<210> 1299
<211> 185
<212> DNA
<213> Homo sapiens

<400> 1299
gaattcgcgg ccgcgtcgac ccgggattta ggggcaggat aaagattagt aatagctagt 60
aaggaacaga attcaaaatg tggtctctaa ttacaaaatc tatagtttta acttcattta 120
ctgctactag tgtccctgat ggtataactt tcttaaatct ttcagtaggt ccaggtgatc 180
tcgag 185

<210> 1300
<211> 245
<212> DNA
<213> Homo sapiens

<400> 1300
gaattcgcgg ccgcgtcgac acttagtata actttgcact catttaaatt cagtgaatta 60
ggttttcagt ttctctagaa ggaaaaaagc caactttttg agcctgcctt tgtttctctg 120
cgtgtaagtg tatgtgtata taagaaatga aaattcattt tctcaccagt ttactagttt 180
atgtaagttg gttcctttta atccatgttt ttgagaatgg acttgggaaa gcaatgggac 240
tcgag 245

<210> 1301
<211> 358
<212> DNA
<213> Homo sapiens

<400> 1301
gaattcgcgg ccgcgtcgac agtccctggg gtgtggagcc gctagggttt gcacccatga 60
aacagaaaag ccacaccctc caaggtgtgg ctttcatttt gggactgctg cagggagggc 120
agaggcattg ctgagactgc ctggcaacgg ctgatgcccc aggtaggacc ttttccattt 180
caaagtggtg ttctaagtct gcgtccaaca ctgtgtagga aaaaggttgg tgcaaaaata 240
ttcctggtca tccacccatt aaaatagtta gatgaggcta ttgccttgat gacagctgtc 300
cacactcctc atgaaattaa cccgtatgcc ggggcatttc caaatgtctg aactcgag 358

<210> 1302
<211> 150
<212> DNA
<213> Homo sapiens

<400> 1302
gaattcgcgg ccgcgtcgac gaatttctgt attaacaaaa tattttaata aatcttaaga 60
gaaaatcttt taaaaaaatt ttagggcaca atgaggcacc acttcctctg ggcaaatgca 120
tttgctcctc atttagtgga cattctcgag 150

<210> 1303
<211> 200
<212> DNA
<213> Homo sapiens

<400> 1303
gaattcgcgg ccgcgtcgac agcatgctta ttcttacttc taaaaatata gtcatgtcat 60
ggctgctttt ctggtcactg ctacccttgt gtcaacttgt atcagcagta ttccaaggaa 120
gcaaatggca cgttgaaatg aggataattc aaggaaggta tatttacaaa gatattagta 180
ataaagatgc tggactcgag 200

<210> 1304
<211> 188
<212> DNA
<213> Homo sapiens

<400> 1304
gaattcgcgg ccgcgtcgac ctggtttgtt atagatgcat ggagtggcta ggaaagctgt 60
tagaggtagg atatctagta agagccgtgg tgctcagccc tggctgcaca ttggaactgt 120

ctggagaaca tttaatggcc cgatgcccag gttcacccca gatcaattat atcagcagct 180
cactcgag 188

<210> 1305
<211> 203
<212> DNA
<213> Homo sapiens

<400> 1305
gaattcgcgg ccgcgtcgac cgcaggattg ggactgatac agaggccgcc acggagcccg 60
ccggagccac cgttcctgct gctgccgccg ctgcccgaat cggaaccgtc gggccgcagc 120
cgccggcaat gccgcgaagg aagaggaatg caggcagtag ttcagatgga accgaagatt 180
ccgatttttc tacagatctc gag 203

<210> 1306
<211> 160
<212> DNA
<213> Homo sapiens

<400> 1306
gaattcgcgg ccgcgtcgac caacattgaa gaggatcact gcttttcata agtaagttga 60
attttgaagt tcctgttttc ttaaatctgt agaaataaac ttgcatgttt tgtgggttat 120
gttaatttct aagctaattt gttgttgtgg tcagctcgag 160

<210> 1307
<211> 585
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (18)

<220>
<221> unsure
<222> (23)..(24)

<220>
<221> unsure
<222> (277)

<400> 1307
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tggaacctct ctttcctgca ttaacctttg gccttcggca gcatataagc aattagtctc 120
ttccaaaaat ttcagttcaa atgaatcttt atacacctgc aggtcagaca gcatgcccag 180
gaggctccgc aacaggctcc ggtccacggc ctcgccgctc ctctcgcgct cgatcagcag 240
taggattcca tcaatggttt tactctgaac cattttntca ctaataatat gggttctaaa 300
cagttctaat cccatatccc agatggaggg cagcgtggag ttctgcagca cataggtgcg 360
gtccaagaac aggaagatgc ttctgatcat gatcatttgt ctgcagtggt cctgccagca 420
cgtgttaatc ttctttaaaa ataaaacact atctagtgag tcttctctaa acggaaggat 480
ctgtgcctgg acgtggtctt cacaggcctg acgcagttgc ttgtagagca ttggggagac 540
tttgtgagaa cagagatttt ccacagcctg gtagagctcc tcgag 585

<210> 1308
<211> 219
<212> DNA
<213> Homo sapiens

<400> 1308
gaattcgcgg ccgcgtcgac ctttaaatgt tttttctacc ctccttctct ctttctggaa 60

ttccagttac acgtttttag atattttgat attgtcctaa aaataacatt gcctctgtac 120
atctttttc agctgttttt ctctttattg tttagttttg ccatttgtta ttataattta 180
gttcaggaca caaagatgag ggttaggaga agcctcgag 219

<210> 1309
<211> 176
<212> DNA
<213> Homo sapiens

<400> 1309
gaattcgcgg ccgcgtcgac cacgttagtg tagacatggc cttgggggct gagcgcagca 60
gccaggctgc cagggctggg ggcgggtagg aggcacggta gttggtgggt gggaagaggg 120
cctgggtggt ggcggtcagt tagcctggct gggtgaggtt gatgaggtga ctcgag 176

<210> 1310
<211> 182
<212> DNA
<213> Homo sapiens

<400> 1310
gaattcgcgg ccgcgtcgac gccaggaata tgttctgtaa aaacgtgttt tatatgattg 60
tgcagggtgt cttactgtcc ccagaactac ctgaatcaga ctgctgccca gcaggtggca 120
ctggaaataa cctcctgtgg aatgtttctc atgcccctct cttatggcag gacacactcg 180
ag 182

<210> 1311
<211> 171
<212> DNA
<213> Homo sapiens

<400> 1311
gaattcgcgg ccgcgtcgac tgaagagaga gcaccacatg gacatccgag atgtaaccat 60
ctaggcagtg agggcagcat gttagcagag aggtgaagga tgaagacaga gcaccaaatg 120
ggcatccgag atgtaaccat ctaggcagtg agggcagcat gttgcctcga g 171

<210> 1312
<211> 222
<212> DNA
<213> Homo sapiens

<400> 1312
gaattcgcgg ccgcgtcgac ggagaatcac ttgaacctgg gagataggga ctgcagtgaa 60
ccaagattgc tccactgcac tccagcctga gagacagaga ctccatctca aaaaaataaa 120
gaaaccgcgc ccagcccaga cccctcattc ttaaagaata gtacttcctc tctaagtgat 180
aagatcctga tgaaactgtt aaaattcagg cgagcgctcg ag 222

<210> 1313
<211> 216
<212> DNA
<213> Homo sapiens

<400> 1313
gaattcgcgg ccgcgtcgac gtaacaacca gttgagaaaa agggaggaac tgaagataac 60
tcaggttttg agctagggta gaggaataat ttggaaggag aagataacaa actgcatttt 120
agacccactg agatggaagc ctcagaagga catcattgtg aaaatatcca gcaagcccat 180
ggaaatgtgg agaggtcaga accaaataaa ctcgag 216

<210> 1314
<211> 251
<212> DNA

<213> Homo sapiens

<400> 1314
gaattcgcgg ccgcgtcgac acagctctct cctcatttta atccaagggt agagttgtaa 60
tcctgagaac agccaggatt cacagttgaa aaataattta aaaagctctt ctgggggtat 120
agatttttag ttcaaaaaaa catatcaata ttcagagtta tacagaaact gacagaggtg 180
ttatttttaa aagattcaga agaatggatg actcatactc ttcaactaga tttcatcacg 240
ggatgctcga g 251

<210> 1315
<211> 201
<212> DNA
<213> Homo sapiens

<400> 1315
gaattcgcgg ccgcgtcgac attagagaat aaaagggaat gacttaaaat ttttccatgt 60
atgtattgat ttatagatta tttttctgta cggtttgtaa aatacatgtt tttttctttt 120
tttgagacag tcttactctg gcatctaggc tggagtgcaa tggcgcaatc tcagctcact 180
gtaacctccg ccaccctcga g 201

<210> 1316
<211> 328
<212> DNA
<213> Homo sapiens

<400> 1316
gaattcgcgg ccgcgtcgac acctgacgtg gcctctagag aatgttgccc agggcagtag 60
agcctccctg gtggcactgc tgtcagcacc accctgcaca gcccggcaga accctgcctt 120
gccctggcca tctctgtctc tgagattcac cacggaggtt agcttggtta taggtgagct 180
gttaagagta ggggtttgtg ttcttggaag ttagggctta ggagccacac atttccttct 240
tgcccagctc ttgcttgctt agaccatttt ctttatcttt ttcaatgaac acttgtcaaa 300
gtgtgctcct tcctcccatc ctctcgag 328

<210> 1317
<211> 254
<212> DNA
<213> Homo sapiens

<400> 1317
gaattcgcgg ccgcgtcgac caaaaacatt aaaaaacttt cctaagtcac ttagagtgat 60
tttaaaactt ttttttaact gtatcacact gcttctcgat agttcaagtt aattatctta 120
tttgtatctc tagacttggt acagtgtctg tgttcccagg tggctgaata ctaaggctaa 180
atattagctg aatgccttcc atgtgctcaa cctgtctatt gtctagaaaa ctaaaatcta 240
ggctgggact cgag 254

<210> 1318
<211> 203
<212> DNA
<213> Homo sapiens

<400> 1318
gaattcgcgg ccgcgtcgac tccgtattta gtttcttttt ctctgtgttc aatctctgga 60
tttgaccctc tagctccctt tcagctttct gtttctcatt gtttgctttc ttttcttctt 120
ccagctgatg ttccacttgt ttcttctgtt gtttcaaaga tttgatggtg tcattcagtc 180
gactgatttt tatggacctc gag 203

<210> 1319
<211> 271
<212> DNA
<213> Homo sapiens

<400> 1319
gaattcgcgg ccgcgtcgac ccacttttta gtaggcaaag acacttctac cacaacaatc 60
aggtaatttc ctcatatttg tgaatatgga agtgattgaa tgtttctatc ttattttgga 120
ttcctataat aacttcataa gtctctgcac acaaataggg tcagattaag cctcgacttc 180
tccaaagagt tctcaaaaca cgaagaacaa acttttaagt ctcttgatat tcttcatgta 240
ccatttatat ttagttgctg gtcaactcga g 271

<210> 1320
<211> 576
<212> DNA
<213> Homo sapiens

<400> 1320
gaattcggcc aaagaggcct agaagctgat caagtttctg gccttgcaga gaatacatca 60
gcttttcccc tcccgggtcc aaccttcacc gggcagtgtc gggacacatc agctggcttc 120
tggagggcac cacatagaag tgcaaagaaa ggaggtacag gcccgagctg tgttctaccc 180
cctcttaggg ttgggaggag ctgtgaacat gtgctatcga accctctaca tcgggacagg 240
agctgacatg gatgtgtgcc ttacaaacta tggtcactgt aactacgtgt ccgggaaaca 300
tgcctgcata ttctacgatg agaataccaa acattatgag ctgttaaact acagtgagca 360
tgggacaacg gtggacaatg tgctgtattc atgtgacttc tcggagaaga ccccgccaac 420
ccccccaagc agtattgttg ccaaagtgca gagtgtcatc aggcgccgcc ggcaccagaa 480
acaggacgaa gagccaagtg aggaggcagc catgatgagt tcccaggccc aggggccgca 540
gcggagaccc tgcaattgca aagccagcag ctcgag 576

<210> 1321
<211> 115
<212> DNA
<213> Homo sapiens

<400> 1321
gaattcgcgg ccgcgtcgac ggctcctcac taatcaataa cacaagtgct aagttctaag 60
tatttaaaaa aacaaaagac tgcaggtgac tccttctctc aggtcccatc tcgag 115

<210> 1322
<211> 557
<212> DNA
<213> Homo sapiens

<400> 1322
gaattcggcc aaagaggcct agacagaaga taaatgaaag tataaaaaaa cctttaagta 60
gtaaagaggg cactcaaaag tgtatttctg ggtatagttc tgtcttccca gtagggtaga 120
tgtcaggctc atctgttaat aaaagtcaac accaaaatga tggtaggaag tttgtggttt 180
tgggggaaag ttcaaaattg gggctgtagg acatgtaaat catgaagata cgatttttta 240
aaatagccaa atagtaatat aggtatgcta tggtagagat cttgattgtg catccattaa 300
tgtatagtgt gcttaaaatg tctataggct aaggaattat tttgactttg atatgtggac 360
aggaaggagc ctctgaaagt aacttgaaga aattgatatt ttcagttttg tagcatcata 420
tagtctaatt ggaatggaca gagatgtgag gcagagatat caggaagcca ttacaggagg 480
ccgggtgtgg tgtggtaaat agtgactgcg gcagagagaa cgaaattata ttgtaaagtg 540
agagacagct actcgag 557

<210> 1323
<211> 376
<212> DNA
<213> Homo sapiens

<400> 1323
gaattcgcgg ccgcgtcgac caagcagcag cgagtaccag tccctttttct gttctgctga 60
caagctcacc ctctgtcacc tgctcaacat catgaaggtc tccaccactg cccttgctgt 120
tcttctctgt accatgacac tctgcaacca agtcttctca gcgccatatg gagctgacac 180
cccgactgcc tgctgcttct cctacagccg gaagattcca cgccaattca tcgttgacta 240

ttttgaaacc agcagccttt gctcccagcc aggtgtcatt ttcctgacta agagaaaccg 300
gcagatctgc gctgactcca aagagacctg ggtccaagaa tacatcactg acctggaact 360
gaatgccgta ctcgag 376

<210> 1324
<211> 372
<212> DNA
<213> Homo sapiens

<400> 1324
gaattcgcgg ccgcgtcgac caaagtgatg agcatggttt cctattcctt tctggagatc 60
gtgtgtgtct acggctactc gctgttcatc tatatcccca cagcagtcct gtggatcatt 120
ccccagaggg ttgttcgttg ggtccttgtc atgattgccc tgggcgtctc aggctctgtg 180
ttggtaatga cattttggcc agctgttcgt gaggataacc ggcgtgtcgc cttggccacc 240
attgtgacaa tcgtgttgct tcatgtgctg ctctctgtgg gctgcttggc ttacttcttt 300
gatgctccag agatggacca cctcccagca gctataacca ctcccaacca gacagtaaca 360
gcggcactcg ag 372

<210> 1325
<211> 234
<212> DNA
<213> Homo sapiens

<400> 1325
gaattcgcgg ctgcgtcgac agggaaggtg ctatagagag aaattaaatt tcacaaaagt 60
ataaaagcaa agactggcta aaatctgtaa cttcatgagt aagaataaca acaataaccc 120
attctataat taactcctcc acagtgaaca atctgctaca cattccttga tgaggaatga 180
acctagctta ccacagtgga aacctgccac aactgcaagg ccggggttct cgag 234

<210> 1326
<211> 537
<212> DNA
<213> Homo sapiens

<400> 1326
gaattcggcc aaagaggcct aggatctgta atgttgatta gtctttagcc ataaccacta 60
cacttttaga aagacagaaa aatgtaagaa tttgttttta ccataatgag tcttaagtag 120
gttcatgatc tacattgggg cctgggatta ttttttaat tttaagtttg catgagatag 180
cctaataaat ggaggtgggg ccaggcatgg tggctcacac gtgtaatccc aacactttgg 240
gaggctgagg aggaaggata gcttgaggcc aggagtttga gactagactg ggcaacatag 300
caagaccccg tctctacaaa gcacaacgaa aaacaacaaa tggagttgtg ctatgttgta 360
ttgctttgca caaaattagg aacaggtgtt tgacaattga atttgttttc tgtgaattct 420
aacctctaaa ggcatgctta gaggtcaagg accttcctgt gtagttggtg caaaagcaat 480
ctccacagga cagcactgct tccatgcttc atacatcagg aaatgaggcc actcgag 537

<210> 1327
<211> 206
<212> DNA
<213> Homo sapiens

<400> 1327
gaattcgcgg ccgcgtcgac caaccatttt gtcctgcatc tcttctttcc tgtagagcct 60
ttgaagcatt gtattttggg aaaattcttc tgtaaatact ataactttta taaatggtta 120
agttatttag aattatctcc agtgcttact tctcccttct tctgtataaa tctgctactt 180
caattaagtt ctcctccatc ctcgag 206

<210> 1328
<211> 178
<212> DNA
<213> Homo sapiens

<400> 1328
gaattcgcgg ccgcgtcgac atttgatacc tttgatagcc tttcactaag tattccagcc 60
gccacatggg gtcacccatt gaccctggac cactgccttc accacttcat ctcatcagaa 120
tcagtgcggg atgttgtgtg tgacaactgt acaaagattg aagccaagag aactcgag 178

<210> 1329
<211> 162
<212> DNA
<213> Homo sapiens

<400> 1329
gaattcgcgg ccgcgtcgac catgtgggtg gctgtattac tcatgtgtca gatgtaccag 60
atatcatgtt taggtattac tacaaatgaa agaatgaatg ccaggagata caagcacttt 120
aaagtcacaa caacgtctat tgaaagccca ttcgtcctcg ag 162

<210> 1330
<211> 223
<212> DNA
<213> Homo sapiens

<400> 1330
gaattcgcgg ccgcgtcgac gtctctcaaa aaaaaaaaaa aaagatcgtg tgtcacctgc 60
acacaacatt cacaaactaa agccaaattg tatttttaaa atttcctttc tcccttcctg 120
ctccctgaga ctgttttgat tgacatcttt tgtgtttcta tattttccga ggcagtattt 180
tctttgtatg ttaatcatag ttatagtaaa gtcagcactc gag 223

<210> 1331
<211> 234
<212> DNA
<213> Homo sapiens

<400> 1331
gaattcgcgg ccgcgtcgac gttctctaca acagaagcca agaaggaagc cgtctatctt 60
gtggcgatca tgtataagct ggcctcctgc tgtttgcttt tcataggatt cttaaatcct 120
ctcttatctc ttcctctcct tgactccagg gaaatatcct ttcaactctc agcacctcat 180
gaagacgcgc gcttaactcc ggaggagcta gaaagagctt cccttctact cgag 234

<210> 1332
<211> 137
<212> DNA
<213> Homo sapiens

<400> 1332
gaattcgcgg ccgcgtcgac ttgtgcatac tgtaagcaaa ttgcttagct tctctagaca 60
tcaactgtgt tggagatttg cctagcacat ataactaaat ggtgctcatc tgcactgcac 120
tcacacactt actcgag 137

<210> 1333
<211> 181
<212> DNA
<213> Homo sapiens

<400> 1333
gaattcgcgg ccgcgtcgac cgagtttctt tctttcagta agacatacca aagtttgtgt 60
aaatcttcat tacttttgtt ccttagttgc tgacaggtcc atgctgctcc agattttact 120
ttttcttgcc cccagttttt tgggtcatca aaaaattctc gttgatcaga cctgcctcga 180
g 181

<210> 1334
<211> 120

<212> DNA
<213> Homo sapiens

<400> 1334
gaattcgcgg ccgcgtcgac tgcatatata ccataaacac tgtgaagaag caaccattag 60
gcacaggaat ccagccagat aaattaagta gaaatgctca tctttcattt atgcctcgag 120

<210> 1335
<211> 157
<212> DNA
<213> Homo sapiens

<400> 1335
gaattcgcgg ccgcgtcgac gtacttgaag attaaaggcc ttactgagga gtatccaacc 60
cttacaacct tcttcgaagg agaaataatc agcaaaaaac accctttctt aactcgcaag 120
tgggatgcag atgaagatgt tgatcggaac actcgag 157

<210> 1336
<211> 205
<212> DNA
<213> Homo sapiens

<400> 1336
gaattcgcgg ccgcgtcgac gtcactgggg gtttcttctt tgcttgcttt cttcctcctt 60
accctacccc ccactcacac acacacacac acacacacac acactttcta taaaacttga 120
aaatagcaaa aaccctcaac tgttgtaaat catgcaatta aagttgatta cttataaata 180
tgaactttgg atcactttac tcgag 205

<210> 1337
<211> 209
<212> DNA
<213> Homo sapiens

<400> 1337
gaattcgcgg ccgcgtcgac caagcttctg ctatagctcc tcctcaaaaa catttcacag 60
ctcatcacgg cctgtagaat agagcccaaa ctctttttaa gtggtatacc aagcccttca 120
tgatctactt ccactatcca gcctcattta ccatcgtcct tgtttcctat ctgctatccc 180
actgcaaacg acatgcagct cccctcgag 209

<210> 1338
<211> 207
<212> DNA
<213> Homo sapiens

<400> 1338
gaattcgcgg ccgcgtcgac catttttaag atagaaaaat ttttaggttt ttgttaccaa 60
atctgtcagt cttttacttc attgtatttt tcagttatgg ctagaaagac cttttgtacc 120
acagattata tatttatttt ttctactaac tttgtatctt ttttatgttt caaaatttac 180
atttatctgg aatcagtatt gctcgag 207

<210> 1339
<211> 158
<212> DNA
<213> Homo sapiens

<400> 1339
gaattcgcgg ccgcgtcgac tgattggaaa tcgaactgga aacccgaagg caggagatgt 60
atgctcccct gggatgtatg gggaaatcac acagagctgt tagtacttca gtcatgggat 120
ttgctctcat gctatgcata tgggcctcac aactcgag 158

<210> 1340
<211> 194
<212> DNA
<213> Homo sapiens

<400> 1340
gaattcgcgg ccgcgtcgac accagaacag agaggttaat ggtgtccacc acacgtcttt 60
ctcattcttt tctcctttat cttcactctg atttttcttt tgtcattcaa cgcttactcc 120
cttccccata cctcagtcct ccaggtgaca cctgggctct tttctgcctg aacagcattc 180
cccaccaact cgag 194

<210> 1341
<211> 236
<212> DNA
<213> Homo sapiens

<400> 1341
gaattcgcgg ccgcgtcgac agtaatccca tgtacttatt tcttaaatac ctaggaagtt 60
cttcttggtg gctcctcttg gccctcccct ctttctcccc caacccacca tcctgcaagg 120
caaggaatgg cctctccctc cacagaggca acggctgcag agggagcact gtggctgcca 180
tcccagttcc tcttcaaagc caaacagaca cgcgtgactc aaatccaaca ctcgag 236

<210> 1342
<211> 262
<212> DNA
<213> Homo sapiens

<400> 1342
gaattcgcgg ccgcgtcgac catactgtat tattttgaag cggatcttaa acagtatcta 60
taagtattta ttcatccata agcatttcag tatttgtctc taaaagataa ggctctcttt 120
ttaaaatcat tatcacacct aagaaaaagt taataattcc ataatatcaa catatagtca 180
tatgtttaga ttgccagttg tttcacaaat gttatgtgtg tgtatacttt tcagtttatt 240
tttgactcag gatcccctcg ag 262

<210> 1343
<211> 178
<212> DNA
<213> Homo sapiens

<400> 1343
gaattcgcgg ccgcgtcgac cccctgcctc gaggagatta tagtctattt ggagagatag 60
atggtcaaca aattattaca taaataattc atacagttgt gataggtact acaaagaaga 120
cgtataagtt gctatgaaag tttataatag gggaatttta cgtatccttg ggctcgag 178

<210> 1344
<211> 201
<212> DNA
<213> Homo sapiens

<400> 1344
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tgctgtgctg tgtgtcagaa gataaaacag gtgtattatt gtataatgaa ttttgtatac 180
atgtttatga aatggctcga g 201

<210> 1345
<211> 384
<212> DNA
<213> Homo sapiens

<400> 1345
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attgaaacga tctgtgctcc gtgtcaccat ccacacggta gggatcacag ttggtctctg 120
tctctgggag gtctgtgggc tttaaatgag acagtagaga tgaagtgctt agagctgtgc 180
cccgtgcatg gccagtgtgc aatgagatgg tctcagagta ttatggctgg agtcaccact 240
tgtattacca ggaagcccag cctctgtgat tacaggattc caactatggt gactctgcac 300
ctcttccttt ttctcttgct ttctcattcg tcttattacc atttgctgaa attaaatcag 360
aacacacagg ggtcgcacct cgag 384

<210> 1346
<211> 250
<212> DNA
<213> Homo sapiens

<400> 1346
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gctcctgtct tttgtttgga tgccggcgct gctgcctgtg gcctcccgcc ttttgttgct 120
accccgagtc ttgctgacca tggcctctgg aagccctccg acccagccct cgccggcctc 180
ggattccggc tctggctacg ttccgggctc ggtctctgca gcctttgtta cttgcccccc 240
ccagctcgag 250

<210> 1347
<211> 328
<212> DNA
<213> Homo sapiens

<400> 1347
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cccgcgtggt gggaaggctg cgcttggtct ttacgcgcgt gcccttcacc cactggttct 120
tctccttcgt ggaagacccg ctgatcgact tcgaggtgcg ctcccagttt gaagggcggc 180
ccatgcccca gctcacctcc atcatcgtca accagctcaa gaagatcatc aagcgcaagc 240
acaccctacc gaattacaag atcaggttta agccgttttt tccataccag accttgcaag 300
gatttgaaga agatgaagag tcctcgag 328

<210> 1348
<211> 139
<212> DNA
<213> Homo sapiens

<400> 1348
gaattcgcgg ccgcgtcgac ctctggccta tgattgtgtt gtgtcttgca ttaaaaaaaa 60
aaatttgaga gtggtagaat tacttctgtt atctgaaata cctgagatgc actttaaact 120
gttgagatgt ctactcgag 139

<210> 1349
<211> 175
<212> DNA
<213> Homo sapiens

<400> 1349
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agccacatcc atgattgatt gtaaggggat tattataatt gatagcttct ttatcatggg 120
attgctagta tcatttgtac ttgctggtct ttttaaagga acagactcac tcgag 175

<210> 1350
<211> 166
<212> DNA
<213> Homo sapiens

<400> 1350

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aaaaagttct aaaatttttt aaaggatggg gtcttgctat attgcccagg ctggagtgca 120
gtggctattc gcaggtgcaa tcatcatggc acattacagc ctcgag 166

<210> 1351
<211> 192
<212> DNA
<213> Homo sapiens

<400> 1351
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actaatcttc ctttcataga acctctattt tttttttttc taaacttgag tttgagtcct 120
tgttatggtc atcataaggt aatggttagc atgtttaaag atattcctct tccaaatccc 180
agcgaactcg ag 192

<210> 1352
<211> 273
<212> DNA
<213> Homo sapiens

<400> 1352
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tttgtttttt tagagacagg gtcttgttct gtcacccagc ctggcatgca gtggttcaat 120
catagctcac tgcagcctca aacctctagg ctcaagcgat cctcccactt cccaaagccg 180
tgggattaca ggcatgagcc acagtgcttg gtttattttt gccttcttaa agcatgggtc 240
ctagagcatg gtccctcccc taaaaatctc gag 273

<210> 1353
<211> 201
<212> DNA
<213> Homo sapiens

<400> 1353
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tgctcttcac ctgcttctgg cattttacag tgttcctctt taggtattat cttcaccttg 120
acgccggaac ccaaatccag atttatcccc ggtgtttgac tgatgcagct cttgcagatc 180
accttccatg tcgctctcga g 201

<210> 1354
<211> 211
<212> DNA
<213> Homo sapiens

<400> 1354
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tcccacaaac tttctgggaa gctttaagaa aatgaaaatg ctctcttctc acttttgcag 120
ctgctgtacc ctcctcctac ctctgctgac tgcagcaggt cagagtgggt ctgagggcct 180
ctctggcacg gctggcctgc cccacctcga g 211

<210> 1355
<211> 218
<212> DNA
<213> Homo sapiens

<400> 1355
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gtttttgttt cctagcttag aatttataat cagattaggt tttggagata aagtatatgt 120
ggtatttttt ttttgagaca gtcttgctct gtcatcaggc tggagtgcag tggcgcaatt 180
tcggctcact gcaacctcca cctcctgggt cactcgag 218

<210> 1356
<211> 203
<212> DNA
<213> Homo sapiens

<400> 1356
gaattcgcgg ccgcgtcgac tgttactcta atattaccca agattttctc cagcctgttt 60
ttactcttac tttgaaacag ctgtttaaaa tgactcgtaa tctgcttaaa tctacatgct 120
ttttgtggtt ctcaatccag ttacctacct tccagataat tccctcactg tcctgtcctc 180
tccattcctc tgatgttctc gag 203

<210> 1357
<211> 151
<212> DNA
<213> Homo sapiens

<400> 1357
gaattcgcgg ccgcgtcgac caaactcctg ttgctttcgt ctatatcagg tctcatttta 60
aaagaatatg aggctcattt tacctcttct tcctccactc ctagttttcc tttttatatt 120
tgacattggc agtagttcca gtacgctcga g 151

<210> 1358
<211> 235
<212> DNA
<213> Homo sapiens

<400> 1358
gaattcgcgg ccgcgtcgac aatcctacct gatctttaac aaagcattaa taattctaag 60
gataatctct attttgttgt gctttttttgt aactgtttta aataaatcaa tttgtactgt 120
atatttgtac ttttgtgaga tccttttttgc tgttttacca ttttaagtct ctgtacttgg 180
ctacacacag attgtatttt tattgttaat gctcttctta tggatagccc tcgag 235

<210> 1359
<211> 181
<212> DNA
<213> Homo sapiens

<400> 1359
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ctaccacgac ttttttacta acattttaca gttgatccag tcccctgtga caacccccct 120
tgggctgatc atgttgaaga caacttcaga agagctggct tgtccccgtg agcacctcga 180
g 181

<210> 1360
<211> 185
<212> DNA
<213> Homo sapiens

<400> 1360
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ttccacttga ttctagactc ttgagtccac agattctggc gctcccgtct tcagtcgctg 120
acttgccctc agaagcctat cttgggaggc cacacaccag tgtacctaag gttccctgcc 180
tcgag 185

<210> 1361
<211> 278
<212> DNA
<213> Homo sapiens

<400> 1361

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ttttaaagat attaattcca agttttgttt ttggagtttt cttttgtttc cttcattgtt 120
tctgcctttt gaagtctttc ttcctcttta tttggctttt cagtttattc agggagacgc 180
ttccagccct gtgcagcata ggctgtaatc ctgggagtag ggacaggaaa ggggaatgtg 240
ttgagagtcc ccaaggccac cctcaggttc agctcgag 278

<210> 1362
<211> 217
<212> DNA
<213> Homo sapiens

<400> 1362
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gtataccaac acgatgaact atagcatatt tgtatttcta cttttttttt tagctattta 120
ctgtacttta tgtataaaac aaagtcactt ttctccaagt tgtatttgct atttttcccc 180
tatgagaaga tattttgatc tccccaatga actcgag 217

<210> 1363
<211> 283
<212> DNA
<213> Homo sapiens

<400> 1363
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gattaattct tgatccaggc tcttctattt gcacacaacc tggatcagat tctctctgca 120
gttgctcagg agccacatgc gatttgctga gcatgtgcac tggtggacag cgagccttcc 180
ctcctgcaga ggctacaccg cctccccaca ggcctggtgc agaccagagc tgtcacaggc 240
acttgtgagt gtggagtgct cagagagtag aggctatctc gag 283

<210> 1364
<211> 202
<212> DNA
<213> Homo sapiens

<400> 1364
gaattcgcgg ccgcgtcgac ccattcttcc gtattggttg ggggctcctg tttctcatcc 60
tagctttttc ctggaaagcc cgctagaagg tttgggaacg aggggaaagt tctcagaact 120
gttggctgct ccccacccgc ctcccgcctc ccccgcaggt tatgtcagca gctctgagac 180
agcagtatca caggccctcg ag 202

<210> 1365
<211> 276
<212> DNA
<213> Homo sapiens

<400> 1365
gaattcgcgg ccgcgtcgac atttttcatg actctgggct gtgtctactg cagctatgga 60
agttgggacc ttttccggga ggcttatgct gccattgaga cttatcacca gaccccacca 120
cccaccttct cctttcgaga aaggatgact cacaagagtc ttgtctacct ctggttcctg 180
tgcagttctg tggcacttgc cctgggtgcc ctaactgtat ggcatgctgt tctcatcagt 240
cgaggtgaga ctagcatcga aaggcacaca ctcgag 276

<210> 1366
<211> 365
<212> DNA
<213> Homo sapiens

<400> 1366
gaattcgcgg ccgcgtcgac agattggatt gctggcaaag cacagaatgc ctgtatatga 60
tgtaactgta tcaaaaataa aaagctgtca catattttgt aaatttttac cttgtaaagt 120

cacaaaaata gtttttaaag gaaaaagtac agtattcttt taataaactg gctcacagtc 180
tggtaggtct acaaccccat agcacaacag gtttatagag atgtatatag aattatagtc 240
cttatttttt tcctttgcgt gaaacctttt ataacagatt aacaatcaac tgcataaata 300
ttattaatat tttaaaaaga gttaagttgt attttgataa ttcacaaact atcatgcacc 360
tcgag 365

<210> 1367
<211> 291
<212> DNA
<213> Homo sapiens

<400> 1367
gaattcgcgg ccgcgtcgac tgtctggttt ggtgcagtta ccatcaccct caactcaaaa 60
cttcttggag ggaacatatc tttttttcag agcctctgtg tgctgggtta ctgtatactt 120
cccttgacag tagcaatgct gatttgccgg ctggtacttt tggctgatcc aggacctgta 180
aacttcatgg ttcggctttt tgtggtgatt gtgatgtttg cctggtctat agttgcctcc 240
acagctttcc ttgctgatag ccagcctcca aaccgcaggg ttctccctat a 291

<210> 1368
<211> 242
<212> DNA
<213> Homo sapiens

<400> 1368
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gaagaaaaat ctagatcgtc ctcatgaacc agaaaaagtg ccaagagcac ctcatgacag 120
gcggcgagaa tggcagaagc tggcccaagg tccagagctg gctgaagatg atgctaatct 180
cttacataag catattgaag ttgctaatgg cccagcctct cattttgaaa caagacctcg 240
ag 242

<210> 1369
<211> 212
<212> DNA
<213> Homo sapiens

<400> 1369
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ggagaaggaa ctgcaagcca ccaagtcttc atttttcagg gtttgtaatc ttcccaaagt 120
tttcctttga aaataggata atgggtggaa ttttcagagt gattacatac ctcaacattt 180
ttattaacat acaacaatgg gaaagcctcg ag 212

<210> 1370
<211> 190
<212> DNA
<213> Homo sapiens

<400> 1370
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ccactgcatg aacatctata caattttaaa aatacttcct cataggatgc tttggccctt 120
catctattta atcatagcta catacctatt ttttataagt agcagtacac attcaaaggg 180
gcatctcgag 190

<210> 1371
<211> 158
<212> DNA
<213> Homo sapiens

<400> 1371
gaattcgcgg ccgcgtcgac ccagccaaga ccaccatgaa gaaagcctat tacctggcat 60
gtggattttg tcgctggacg tctagagatg tgggcatggc agacaaatct gtagctagtg 120

gcggttggca ggaacctgaa aatccacaca cactcgag 158

<210> 1372
<211> 114
<212> DNA
<213> Homo sapiens

<400> 1372
gaattcgcgg ccgcgtcgac cccgctgtca ctttggacaa tggaaatcta cattttcttt 60
tccctttttt tttttttgag acagagtctc gccttgtcac ccagggctct cgag 114

<210> 1373
<211> 193
<212> DNA
<213> Homo sapiens

<400> 1373
gaattcgcgg ccgcgtcgac gcgacatgaa gtaccacatt tttcagatga tgatgcagta 60
tctgtactac ggaggaacag aatccatgga gatccccacc actgacatcc tggagctgct 120
gtcagctgcc agcctgttcc agctggatgc cctgcagagg cactgcgaga tcctgtgctc 180
ccataccctc gag 193

<210> 1374
<211> 204
<212> DNA
<213> Homo sapiens

<400> 1374
gaattcgcgg ccgcgtcgac caaggatcaa gctcacaagg gatctgttag aggtgtcgca 60
gtggatggat taaaccagtt gacagttaca actggtagtg aaggattact caaattctgg 120
aactttaaaa acaaaatttt aatccattct gtgagcctca gttcatctcc aaatatcatg 180
ttgctacata gggacttact cgag 204

<210> 1375
<211> 313
<212> DNA
<213> Homo sapiens

<400> 1375
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ggaagtaata ataccagtat cctttttttct gggcaaacct taatcctcca tggctttagc 120
attcattgat gttttccaca tgaatcgata cctctatgac gttgccagat cctgtttctt 180
tatatccgct attccttctg catttgttag ttggcattct actgtaagga ggtgctttct 240
attttattca gtgagttgta atccattact tttattattt atttatttta ttttaaatgt 300
cccatttctc gag 313

<210> 1376
<211> 221
<212> DNA
<213> Homo sapiens

<400> 1376
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gtaaagtgag aactccatgg gggagaagaa accctcagga gaggcaggag ctctggcatc 120
aaccatctct ctgcccagaa tctccttcca agttgaagct tcaggagttt gggttcttcc 180
agggtacatt attggtccga taagattgga aaacactcga g 221

<210> 1377
<211> 168
<212> DNA

<213> Homo sapiens

<400> 1377
gaattcgcgg ccgcgtcgac gaaaaggaaa gaaatgaaga gaattcagag acttccatta 60
ttattaatac ctattttatt gattctgttt ctagccctga gtccgctcct aacttgctat 120
aggatctctg gtaaatcatt tcctgtaata agcagctgtc acctcgag 168

<210> 1378
<211> 179
<212> DNA
<213> Homo sapiens

<400> 1378
gaattcgcgg ccgcgtcgac tggatatatt ccagctgtag ttgcccagtg tttacttaac 60
acatctacat ttttttcttg tctattttgg tccccttgat aggaaaagct ataattttag 120
gcaggactat acgtcgattt gtagccatgc ttccttcctt tcccttgctc atcgtcgag 179

<210> 1379
<211> 249
<212> DNA
<213> Homo sapiens

<400> 1379
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atcgttttcc tacttaaatt ttgtttagct taagacttct taggacattt gtaaaagcag 120
gttaaattta ataaggtttc tgattttttt ttgtaaccgg agatagtttt tacaagtgaa 180
ataacatttc agctaaataa aacatcgcta aataattgat atttgatgaa aatctgctcc 240
tgcctcgag 249

<210> 1380
<211> 253
<212> DNA
<213> Homo sapiens

<400> 1380
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atatacacta aaccataaag agtttgcttg ctttatggca atgttgccga agctgttgaa 120
catttagtaa aaatgcaaaa tgttctggca cctttaaaaa catctaaact tgttttgtct 180
tagttcttgc aatgccaccc atacacaaaa gttattaaat atttctctgt gcatgctcac 240
tacttgtctc gag 253

<210> 1381
<211> 142
<212> DNA
<213> Homo sapiens

<400> 1381
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tgccattaag ccacagactt cagtcacatc agtctactgc tttcctccta aacacatcat 120
gttctttcac atcctcctcg ag 142

<210> 1382
<211> 218
<212> DNA
<213> Homo sapiens

<400> 1382
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tgacttcaag aatcaatgca gtagaaagag acttgttaga gccttctccc gcagaccaac 120
tcgggaatgg ccacaggagg acagaaagtg aaatgtcagc caggatcgct aaaatgtcct 180

tgagtcccag cagccccagg cacgaggatc agctcgag 218

<210> 1383
<211> 191
<212> DNA
<213> Homo sapiens

<400> 1383
gaattcgcgg ccgcgtcgac atcacttata ctggaatgct cttggtgtgg ttgcatgtta 60
cagtggtatt ggaaattatg cccttgctca gcactgtttc atcaaatcaa tccagtcaga 120
acaaattaat gctgttgcat ggaccaactt gggagtgtta tacctcacaa atgaaaacat 180
tgcagctcga g 191

<210> 1384
<211> 231
<212> DNA
<213> Homo sapiens

<400> 1384
gaattcgcgg ccgcgtcgac gaccccagca actacgagta tctgcggcag ctgcaggtcc 60
tggatttatt tctcgattcg ctgtcggagg agaatgagac cctggtggag tttgctattg 120
gaggcctgtg caacctgtgc ccagacaggg ccaacaagga gcacatcctg cacgcaggag 180
gtgtcccact catcatcaac tgcctatcca gccccagtga ggagactcga g 231

<210> 1385
<211> 154
<212> DNA
<213> Homo sapiens

<400> 1385
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tgatttgcca gacatgcatc attggctatt gtttgtttgt tttttgtttt tttgtgtttt 120
ttgggttact ttgaaaatga gccagaacct cgag 154

<210> 1386
<211> 213
<212> DNA
<213> Homo sapiens

<400> 1386
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atcatcctgg tccttggcag cacctttgtg gcctatctgc ctgactacag gatgaaagag 120
tggtcccgcc gcgaagctga gaggcttgtg aaataccgag aggccaatgg ccttcccatc 180
atggaatcca actgcttcga ccccaagctc gag 213

<210> 1387
<211> 187
<212> DNA
<213> Homo sapiens

<400> 1387
gaattcgcgg ccgcgtcgac acaagattgt gatttcatta tctaaacctt aaacttaatc 60
ctttaaattt tgtagctttt ggctgcatct gccccaagta ctattccagg caaattaaag 120
ttggaatacc tttaataata taaaaataat gatagtaaat cttatacttc tgttggccca 180
tctcgag 187

<210> 1388
<211> 177
<212> DNA
<213> Homo sapiens

<400> 1388
gaattcgcgg ccgcgtcgac ctctctgatg accagcccaa gcttccttgc ctttaattcg 60
tcatgcagca ttgcacttaa aagttcaagc ctggagctgg atttccaagt accattctgt 120
tttctcactt ggggaatgca gttatggctg gacttgcaca gcggtcaccc tctcgag 177

<210> 1389
<211> 127
<212> DNA
<213> Homo sapiens

<400> 1389
gaattcgcgg ccgcgtcgac gattgaattc tagacctgcc tcgagcttat gccctatttt 60
tttaattatt attattttta acttttggga cacacaaaaa tcagcaattc tcatgaagct 120
cctcgag 127

<210> 1390
<211> 219
<212> DNA
<213> Homo sapiens

<400> 1390
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aaacacataa aaagcctaac ttgaagaatt aaaatttcta ttttttatct gtataacaag 120
tacaaaccat caacaatgac aaattttcac agctgcttgt ttattgcttg ttttatatgt 180
ttacatatct caaaatctgt taaaactgca ggtctcgag 219

<210> 1391
<211> 188
<212> DNA
<213> Homo sapiens

<400> 1391
gaattcgcgg ccgcgtcgac ttttagatga cgaagtccat aaataactag agaatttttg 60
ttatctgttg ttaagttgaa atgtataatc atttatcact aaattgcaca ttgcctttat 120
ttatttgtgc tctgtttttg gtttacagtg taataatacc tcatttaaaa aataaaaacc 180
gactcgag 188

<210> 1392
<211> 201
<212> DNA
<213> Homo sapiens

<400> 1392
gaattcgcgg ccgcgtcgac gttgaaaaat gttatttttc actcgatgtt caaaatctcc 60
taggaaagca ggggcaaaag actttttttt ttttttttcc tcctcatgct tggtcatgca 120
aaagacttta aagagagaaa atgtctcttc cccacttctc tatatacatg ctgggaaaaa 180
aaagaccgga aggagctcga g 201

<210> 1393
<211> 231
<212> DNA
<213> Homo sapiens

<400> 1393
gaattcgcgg ccgcgtcgac ccgcgccatg cagactggtg tcaccgggat catgattgcc 60
cgtggcgccc tgctcaagcc gtggctcttc acggagatca aggagcagcg gcactgggac 120
atctcgtcgt ccgagcgcct ggacatcctg cgggacttca ccaactacgg cctggagcac 180
tggggctcgg acacgcaggg cgtggagaag acccggcgct ttctgctcga g 231

<210> 1394

<211> 128
<212> DNA
<213> Homo sapiens

<400> 1394
gaattcgcgg ccgcgtcgac gagggagact tcaattcaga attttatcct tcataacatt 60
atagtgattt taaaagttat atgcagcaaa tgtgtagtat ttttctcatt tcaaccttca 120
ttctcgag 128

<210> 1395
<211> 199
<212> DNA
<213> Homo sapiens

<400> 1395
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taaagtggta ttgtctacta tctgtacatc attctcttac agctcttact gctgcttttc 120
ctgtcagtta ccccatagct ccaggtatta catgttaact gttcctgaca catgtagaca 180
gaaccaatat gatctcgag 199

<210> 1396
<211> 148
<212> DNA
<213> Homo sapiens

<400> 1396
gaattcgcgg ccgcgtcgac ctgagattat aggtagtggg caaacaattg ttattatgct 60
cacaggcact ataaacattt tatttctact ttttacttgt gtatgcttat cattggaagt 120
aaatataaca gactttgccg ttctcgag 148

<210> 1397
<211> 252
<212> DNA
<213> Homo sapiens

<400> 1397
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tcagtaaaat aaatgaaatt gggaaacact aatcaacaaa agtacaattt ttaaatgtgg 120
atctggagac aaacctgtgt ctggtcagag ctaccctacg ctatgaactg cctggctgta 180
catgacccat ccaatttcac agctgaacca aacttactta ccacccacat tagttttaac 240
actacactcg ag 252

<210> 1398
<211> 204
<212> DNA
<213> Homo sapiens

<400> 1398
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tcctcaccgt attttttaac ccatttaaaa aaaaaaatct taaagccaaa attagaaaaa 120
taactcccta cttttccaaa gtgaatttcg tagtttaatg ttatcatgca gcttttgagg 180
agtcttttac actgggaact cgag 204

<210> 1399
<211> 393
<212> DNA
<213> Homo sapiens

<400> 1399
gaattcgcgg ccgcgtcgac tatgggttta atagtttttt taatttattt agggggaatg 60

atggttgtct ttggatatac tacagcgatg gctattgagg agtatcctgc tgtagctcgt 120
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cctgatcgtc cgcgtcctcc agcgaggagg cactccttcc gtgggccggc cctgaggtct 240
gggccgccgc tgccacctcc tcctcgtcgt cctctccttc ggccgccggt ggcggccgct 300
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cctaggctgg gcggtgtgga acagccgctc gag 393

<210> 1400
<211> 442
<212> DNA
<213> Homo sapiens

<400> 1400
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aagatgcctt gagtaggatg ttcacagagg cagccagctc cttatccagc atggccgcct 240
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gcctcagccg cggccgtagc cgcggtggcc tccataacgg ctgcagtcgt ccccgcctag 420
agcctggttt tggagcctcg ag 442

<210> 1401
<211> 282
<212> DNA
<213> Homo sapiens

<400> 1401
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aatatattaa aattcatttt tatctacagt gtggcccttg gtggggaaaa gctccccatt 120
cctgctctga ggagtgaact ccaatactgg ggcttgccca tgggtgctgc cacaccccag 180
agagaggcga tgcaagcctg ctcccaggcc tgctctccct cctcgacaaa ctggccatct 240
gttcctgggg aaaaagagca gccttcctgt atcttcctcg ag 282

<210> 1402
<211> 330
<212> DNA
<213> Homo sapiens

<400> 1402
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cctgcatgag ataatcagca atgtattctg ttctcaagca gtacacgttc tgggcagcag 180
cttctgctat attaactcct gagtcatctg gtttcagttt attcaagtca gaaaaaagat 240
gtgtggcctc tttaaataaa ggtacagaat gaccaggtag cacctttgct cctcctgact 300
gaagaaggcg tttgaagcct gcttctcgag 330

<210> 1403
<211> 266
<212> DNA
<213> Homo sapiens

<400> 1403
gaattcgcgg ccgcgtcgac ctgggtgttt ctcatctttg tttatctcta ctctgcagtc 60
tccccacccc tacttggatg tttgttggct tgtttattgc attttcttat cctgcctgtt 120
tctcacccgt ttttttccgc atgggcgtat caaccttgct gggctgtggt ggcctccccgc 180
ctagctctga ccctggcctg gccttctggc ttccacccag ctcaatccct gtctttgttg 240
cttcgttggt ccagagttcc ctcgag 266

<210> 1404

<211> 256
<212> DNA
<213> Homo sapiens

<400> 1404
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gctgctgtgc gcctcccagc agtggcaggt gttctcagct gagcgcacag aggagtggca 180
gcgcatggct ggcgtcaaca ccgaccgcct ggagccgctg cgggggggagc ccaaccccgt 240
gcccaacttt ctcgag 256

<210> 1405
<211> 273
<212> DNA
<213> Homo sapiens

<400> 1405
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gcagtggaac gcgggcgctc ctccagcttc cgagtccagc cagcctgggc gcggggcgcc 180
gcccccgaga cacccgagga gtccgttcct ccctggttac gtggactgtg gagctggtct 240
cttgtggctc agcgccgtgc ggaggtactc gag 273

<210> 1406
<211> 271
<212> DNA
<213> Homo sapiens

<400> 1406
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ccaacaaatg aaactgttta ccattctcca tgggccttgt cctctctcac ttctgggcct 120
ttgcacaagt tatttcctct gtaaaacact tcttccaatc ctacctaact ttgctttccc 180
ctgggggctc ccacagcacc cagtacgcat agctcaaagc actgtcatac cttctgtgat 240
ggcctcctca gtagaccatg agttcctcga g 271

<210> 1407
<211> 395
<212> DNA
<213> Homo sapiens

<400> 1407
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ccacacagaa ggacggctgc agcatgaatg gccatttctg tcaccgttcc atcaaggttg 120
ctgtcactag gccccgccct caacaatggc acagaattgt ccacgagcga tgttgcaaaa 180
cggctgatat caggaggtga aaggatcttg cattcgccaa tgaatttgct cacagcttca 240
cattgctctg gcgtggggtg gaggcttgca ttgtgggatc tgtacaaaat agccacctct 300
ctaaacagtg ttaacaggaa gtaggctgac tgctggcttt ggggggtctt gcaggccttc 360
agagcagtct taatgcccag tggcttgcac tcgag 395

<210> 1408
<211> 306
<212> DNA
<213> Homo sapiens

<400> 1408
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cgcccccccgg gcgcgggcgg ggtgcagacc cccaacgcca cctcagaagg ttgccagatc 120
atacacccgc cctgggaagg gggcatcagg taccggggcc tgactcggga ccaggtgaag 180
gctatcaact tcctgccagt ggactatgag attgagtatg tgtgccgggg ggagcgcgag 240
gtggtggggc ccaaggtccg caagtgcctg gccaacggct cctggacaga tatggacaca 300

ctcgag 306

<210> 1409
<211> 368
<212> DNA
<213> Homo sapiens

<400> 1409
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tgctcgcagg ctccgtcgcc cctgcgcgcc tcgtcccgaa gcgcctttcc caacttggtg 120
gcttctcctg ggataactgt gatgaaggaa aggaccctgc agtgatcaaa agcctcacga 180
tccaacctga ccccattgtg gttcctggag atgtagtcgt cagccttgag ggcaagacca 240
gcgttcccct cactgctcct cagaaggtgg agctcaccgt ggagaaggaa gtggctggct 300
tctgggtcaa gattccttgt gtagaacagc taggcagctg tagctacgag aacatctgtg 360
acctcgag 368

<210> 1410
<211> 340
<212> DNA
<213> Homo sapiens

<400> 1410
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agctcccaag ctggggtccc ggaggcagag tgacaatgca tggctgtgtg ggagccaggc 120
aggcggtgac gtggcagagc tgccagcagg ggcccaagag actgcagcag gttggtgctc 180
acagtggatc tgagggatgg gcgtgcgtgg cagggccttg gccatggccc ctgaccaacc 240
cctgtgcacc aaacaccaca ctgagctcag aatccgggca gagagggaac cactggtaca 300
gtgaggccaa ggcacacgca gccgggcctg cagactcgag 340

<210> 1411
<211> 276
<212> DNA
<213> Homo sapiens

<400> 1411
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gaaagacgag gaggcaggga gcagacgagg aggtggggag caggcagccc gggcctcaga 120
ggacacatgg ccttcccccg ctggcacccc cacatcaggg ccaccagggg actgctcaca 180
cccaggggtt gccgcctctg gacctggctg tccctggttc tgctgacctc aggagtgacc 240
tgggcttaca gaggtactgg caaggaggga ctcgag 276

<210> 1412
<211> 281
<212> DNA
<213> Homo sapiens

<400> 1412
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ggctgacctt cgtactgctg ctctgggcct gcctcatctg gacagtgcgc agccgccacc 120
aactggccat gctgtgctcg ccctgcatcc tgctgtatgg gatgacgctg tgctgcctac 180
gctacgtgtg ggccatggac ctgcgccctg agctgcccac caccctgggc cccgtcagcc 240
tgcgccagct ggggctggag cacacccgct accccctcga g 281

<210> 1413
<211> 450
<212> DNA
<213> Homo sapiens

<400> 1413
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gtgtacaccc tgaacctggc actggcggac ctgatgtatg cctgttcact acccctactt 120
atctataact acgccagagg ggaccactgg cccttcggag acctcgcctg ccgctttgta 180
cgcttcctct tctatgccaa tctacatggc agcatcctgt tcctcacctg cattagcttc 240
cagcgctacc tgggcatctg ccaccccctg gcttcctggc acaagcgtgg aggtcgccgt 300
gctgcttggg tagtgtgtgg agtcgtgtgg ctggctgtga cagcccagtg cctgcccacg 360
gcagtctttg ctgccacagg catccagcgc aaccgcactg tgtgctacga cctgagccca 420
cccatcctgt ctactcgcta cccactcgag 450

<210> 1414
<211> 345
<212> DNA
<213> Homo sapiens

<400> 1414
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gtcacctatt cgcggctctt cccgcccgcc ttccgccgtc tcttcgagtt cttcgtgctg 180
ctcaaggccc tgtttgtgct cttcgtcctg gcctacatcc acatcgtctt ctcccgctcg 240
cccatcaact gcctggagca tttctgtgac agcggcggcc gcgggagctt cccgggcctg 300
gccgtggaac caggcagcaa cctggacatg caagatgagc tcgag 345

<210> 1415
<211> 355
<212> DNA
<213> Homo sapiens

<400> 1415
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ctactccaag gtcatgcaga tgtttttttc taaatgcttt attgtcttgt cttttatttt 120
ttatatctat ggtctatttg gtatggcttc gtgtgtgtgg tgtgaggtag ggattgagat 180
tcttttttttt ccattgggat atctgattga cccagcatca ttttctaaaa gatgcctttc 240
ctcattgcac tgcggcgcct cctgtgtgct tttgacaggg atgacaggga tgaggatgat 300
aaagaatagg catagcgtgt ctttctcttg tgagacacag ggactccaac tcgag 355

<210> 1416
<211> 412
<212> DNA
<213> Homo sapiens

<400> 1416
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tgaacagaga gaatcaggct caaagcaagt ggaagtgggc agagattcca ccaggactgg 120
tgcaaggcgc agagccagcc agatttgaga agaaggcaaa aagatgctgg ggagcagagc 180
tgtaatgctg ctgttgctgc tgccctggac agctcagggc agagctgtgc ctgggggcag 240
cagccctgcc tggactcagt gccagcagct ttcacagaag ctctgcacac tggcctggag 300
tgcacatcca ctagtgggac acatggatct aagagaagag ggagatgaag agactacaaa 360
tgatgttccc catatccagt gtggagatgg ctgtgacccc ccagaactcg ag 412

<210> 1417
<211> 110
<212> DNA
<213> Homo sapiens

<400> 1417
gaattcggcc aaagaggcca ttcaaaaagg ggttaagagt taaaatggtg tgtgcagctg 60
taacactgga gctattttat ctcttaatga cagttaagga gagtctcgag 110

<210> 1418
<211> 105
<212> DNA

<213> Homo sapiens

<400> 1418
gaattcggcc aaagaggcca ttcaaaaaaa cgtgagaagt atttttgtac cctgtgtaac 60
aaaatattta tgcatcataa aggatttttc atatgcgtac tcgag 105

<210> 1419
<211> 103
<212> DNA
<213> Homo sapiens

<400> 1419
gaattcggcc aaagaggcca ttcaaagacc tgccctgaga ggtctcgagg caggtctaga 60
attcaatcgc ctcagaaggc caaagaggcc attcgctctc gag 103

<210> 1420
<211> 105
<212> DNA
<213> Homo sapiens

<400> 1420
gaattcggcc aaagaggcca ttcaaaattt gactgtttat aaagaaagtt gctttatttc 60
tttaaacatc ttcaaaagat gatcctttct tgtcacattc tcgag 105

<210> 1421
<211> 111
<212> DNA
<213> Homo sapiens

<400> 1421
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tattctattc ttcaaatcca ctgcatatgt tttttagttc cagtactcga g 111

<210> 1422
<211> 125
<212> DNA
<213> Homo sapiens

<400> 1422
gaattcggcc aaagaggcca ttcaaaaaaa agattcagca aattgcttaa aatcgaggta 60
actagcaagc atatatcaag ggatacatga ctcggcttct gtctagtttc aaagccgtac 120
tcgag 125

<210> 1423
<211> 103
<212> DNA
<213> Homo sapiens

<400> 1423
gaattcggcc aaagaggcca ttcaaaaaat ttgaattcag aagataagca ggtaaaattt 60
atcacaagat tgtgtggtaa tgagagtgaa gtggctcctc gag 103

<210> 1424
<211> 126
<212> DNA
<213> Homo sapiens

<400> 1424
gaattcggcc aaagaggcca ttcaaaaatg aaatgcattt ctagtttgaa cttaattgcc 60
acttggcttg atattatttt ccttagaatt gttggaatag aggagagagg aagggagcaa 120

ctcgag 126

<210> 1425
<211> 141
<212> DNA
<213> Homo sapiens

<400> 1425
gaattcggcc aaagaggcca ttcaaagatt gtaaatagct tacaatttac aaataataaa 60
tatacaatgc tgtttatcat aaaaatccac ttagccaatt ggttcttaca aaatgttttt 120
gttaatattt gcgaactcga g 141

<210> 1426
<211> 133
<212> DNA
<213> Homo sapiens

<400> 1426
gaattcggcc aaagaggcca ttcaaaaaca ggaatttgag cacaagatga gaaaatgtgt 60
tggcccctta gcgctggtgg gctggatggc ggccacagca cacgggggca cctcattccg 120
cagggagctc gag 133

<210> 1427
<211> 106
<212> DNA
<213> Homo sapiens

<400> 1427
gaattcggcc aaagaggcca ttcaaagtca gatgaaaatc tttttattct caaaattgtt 60
tttcagttcg gtaaatattt tgagtgtgta tgcacgcggt ctcgag 106

<210> 1428
<211> 109
<212> DNA
<213> Homo sapiens

<400> 1428
gaattcggcc aaagaggcca ttcaaaataa ttggaatata cttttcttaa aaaaaaggaa 60
cagttagttc tcatctagaa tgaaagttcc atatatgcat tggctcgag 109

<210> 1429
<211> 190
<212> DNA
<213> Homo sapiens

<400> 1429
gaattcggcc aaagaggcca ttcaaataaa acacagtaag tactcagaaa ctacttgaag 60
agtgcagtta tcagtagaga tgatcgaaac atttgttttt ctagggaata tttttgcctt 120
tcttcttcca gaatcctctg gttataatgt gctcactgct aggtcaccag tcataaaaca 180
taaactcgag 190

<210> 1430
<211> 111
<212> DNA
<213> Homo sapiens

<400> 1430
gaattcggcc aaagaggcca ttcaaaaata atgatatttg gcctctactt tgtcttagct 60
gttaaactgt ttttagtatt tttgttaaat atttgcaaag ggaaactcga g 111

<210> 1431
<211> 103
<212> DNA
<213> Homo sapiens

<400> 1431
gaattcggcc aaagaggcca ttcaaaaaag agaaggtctc ttccttattg atatcatggt 60
atgcattaat tccatttgtt actattgtgc acaggccctc gag 103

<210> 1432
<211> 178
<212> DNA
<213> Homo sapiens

<400> 1432
gaattcggcc aaagaggcca ttcaaaaaag aaagcagctg ggactaatga actttacatt 60
agccatattc cattatttca gcttaagtca aatgtcggtc ctcatgaggc aactggcttt 120
gacaggagct acgctaatta ccacttacca acctttaatt tctgggcaaa acctcgag 178

<210> 1433
<211> 115
<212> DNA
<213> Homo sapiens

<400> 1433
gaattcggcc aaagaggcca ttcaaagtat ggggtttctc actctgcttt tcttcctgtg 60
gggcttcggg gtgctgtact gttgtcccct catttgcagc aggtatcacc tcgag 115

<210> 1434
<211> 102
<212> DNA
<213> Homo sapiens

<400> 1434
gaattcggcc aaagaggcca ttcaaaaatg cagtatttat tctttgtagg cataatgtgt 60
ttgtcactga caagcattca tgttcatacc actagtctcg ag 102

<210> 1435
<211> 125
<212> DNA
<213> Homo sapiens

<400> 1435
gaattcggcc aaagaggcca ttcaaaaaaa atagaaagta aatagttcta agaatattct 60
ggcataaatt atttttattt agccaataaa atagcctcca aatgtatatc tcagttgccc 120
tcgag 125

<210> 1436
<211> 104
<212> DNA
<213> Homo sapiens

<400> 1436
gaattcggcc aaagaggcca ttcaaaaagt attgcttaat agaaagtgag tagaacttat 60
attcgatcat gttattgagc acatacttac gggcagttct cgag 104

<210> 1437
<211> 125
<212> DNA
<213> Homo sapiens

<400> 1437
gaattcggcc aaagaggcca ttcaaaagga ggtcaccaag aaacatcagt atgaaattag 60
gaattgttgg ccacctgtat tatctggggg gatcagtcct tgcattatca tggaaacacc 120
tcgag 125

<210> 1438
<211> 206
<212> DNA
<213> Homo sapiens

<400> 1438
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gccattcaaa aaaagcagaa tgttttcctc agaaggccaa agaggccatt caaaaaagca 120
gaatgttttc ctcagaaggc caaagaggcc attcaaaaaa gcagaatgtt ttcctcagaa 180
ggccaaagag gccattcaaa ctcgag 206

<210> 1439
<211> 104
<212> DNA
<213> Homo sapiens

<400> 1439
gaattcggcc aaagaggcca ttcaaaaaga taaaattaaa aagccagaca tactttctat 60
caagctgcgt aaagagaaac atgaagtaca aatggatcct cgag 104

<210> 1440
<211> 120
<212> DNA
<213> Homo sapiens

<400> 1440
gaattcggcc aaagaggcca ttcaaaccct cagaaggcca aagaggccat tcaaaccctc 60
agaaggccaa agaggccatt caaaccctca gaaggccaaa gaggccattc aaacctcgag 120

<210> 1441
<211> 119
<212> DNA
<213> Homo sapiens

<400> 1441
gaattcggcc aaagaggcca ttcaaaaaca tattttaagc caagttttag gtgtattttt 60
tgaatcttgg ttataaaccc aattttaaag ggcgatgtat gccagcgttg ttactcgag 119

<210> 1442
<211> 123
<212> DNA
<213> Homo sapiens

<400> 1442
gaattcggcc aaagaggcca ttcaaaagta ttttgaactt agctcatcaa aggccataaa 60
taatctgtaa acatgtttta taaaaaaaaa atcactaaag ctgatcccaa agagccactc 120
gag 123

<210> 1443
<211> 115
<212> DNA
<213> Homo sapiens

<400> 1443
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cctgcttcct gcatgcataa aattaatact tcagccctct tccaaagaac tcgag 115

<210> 1444
<211> 128
<212> DNA
<213> Homo sapiens

<400> 1444
gaattcggcc aaagaggcca ttcaaaccat tcaaacctca gaaggccaaa gaggccattc 60
aaaccattca aacctcagaa ggccaaagag gccattcaaa aaaaagtaaa acttgctgct 120
gactcgag 128

<210> 1445
<211> 110
<212> DNA
<213> Homo sapiens

<400> 1445
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tttttataat gttaatattc tgttttgcct ttataattcc cacactcgag 110

<210> 1446
<211> 118
<212> DNA
<213> Homo sapiens

<400> 1446
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aacgtctagc accacactct cactaagaat ttcactgatg aggcggtggt ttctcgag 118

<210> 1447
<211> 121
<212> DNA
<213> Homo sapiens

<400> 1447
gaattcggcc aaagaggcca ttcaaaaagg agttgtgtgt gtgttttgca tacaacttta 60
caatttcata gttgaaagct gttacaaaat gaaagttttg tgtatggtag gaattctcga 120
g 121

<210> 1448
<211> 152
<212> DNA
<213> Homo sapiens

<400> 1448
gaattcggcc aaagaggcca ttcaaaaatt aactgaggca ggtgatcggt tttttaagct 60
gattagggaa acagtatata agaacttact taactcataa taaaactaaa attcaacagg 120
ggagagttat gattttttgg ctcgctctcg ag 152

<210> 1449
<211> 129
<212> DNA
<213> Homo sapiens

<400> 1449
gaattcggcc aaagaggcca ttcaaaaaaa atgaggattg ccttccttgt atgcgctttt 60
taccttgact acctgaattg caagggattt ttatatattc atatgttaca aagtcagcaa 120
cgcctcgag 129

<210> 1450
<211> 133
<212> DNA
<213> Homo sapiens

<400> 1450
gaattcggcc aaagaggcca ttcaaaaaag agtaggctat aagggaagat tgtcaatatt 60
ttgtggtaag aaaagctaca gtcatttttt ctttgcactt tggatgctga aatttttccc 120
atggatcctc gag 133

<210> 1451
<211> 101
<212> DNA
<213> Homo sapiens

<400> 1451
gaattcggcc aaagaggcca ttcaaaaatt acgcattttc tttatcccca gaatagacat 60
acataaaaat aatgcatact aagttcctgg caattctcga g 101

<210> 1452
<211> 142
<212> DNA
<213> Homo sapiens

<400> 1452
gaattcggcc aaagaggcca ttcaaaagta taaaacaagc aaagaaggga gtgtaatggg 60
agttacagta tcccggcttg caatgttgtc tcactgccaa gctctgtcgc aggcctgcaa 120
ttattctgaa ggggcgctcg ag 142

<210> 1453
<211> 102
<212> DNA
<213> Homo sapiens

<400> 1453
gaattcggcc aaagaggcca ttcaaacata aacataagca taaacataag aaacacaaaa 60
gaaaagaggt tattgatgct tctgataaag agggtactcg ag 102

<210> 1454
<211> 111
<212> DNA
<213> Homo sapiens

<400> 1454
gaattcggcc aaagaggcca ttcaaacata atgtcagaat taatttaaac aaattataat 60
taatgtaata tgattttagg aaagatgaaa cactttatga gagccctcga g 111

<210> 1455
<211> 132
<212> DNA
<213> Homo sapiens

<400> 1455
gaattcggcc aaagaggcca ttcaaaaata aaattattga acagcttagc cctcaagctg 60
ccaccagcag agacatcaac aggaaactag attctgtaaa acgacagaag tataataagg 120
aacatcctcg ag 132

<210> 1456
<211> 136
<212> DNA

<213> Homo sapiens

<400> 1456
gaattcggcc aaagaggcca ttcaaaaaat aaagtgactg aactgtcaga tcaacaagat 60
caagctatcg aaacttctat tttgaattct aaagaccatt tacaagtaga aaatgatgct 120
taccctgatt ctcgag 136

<210> 1457
<211> 104
<212> DNA
<213> Homo sapiens

<400> 1457
gaattcggcc aaagaggcca ttcaaaaata tgatcgaaga aataaagacc ccagcctcta 60
cccccgtgtc tggaactcct caggcttcac ccatggtcct cgag 104

<210> 1458
<211> 111
<212> DNA
<213> Homo sapiens

<400> 1458
gaattcggcc aaagaggcca ttcaaaaatc gaaaaggaaa atactttaac gttgaaagag 60
ttggtcagta cttgaaagat gaagatgatg atcttgtgtc acccccctcga g 111

<210> 1459
<211> 129
<212> DNA
<213> Homo sapiens

<400> 1459
gaattcggcc aaagaggcca ttcaaaaaag gaagaaaaaa acagatttac accacagata 60
gtgatgagat ttcacatatt gttaatcgta ttgctcctca gccaaaggat gaaaaaccaa 120
caactcgag 129

<210> 1460
<211> 111
<212> DNA
<213> Homo sapiens

<400> 1460
gaattcggcc aaagaggcca ttcaaaaaaa aagaaagtta tttctttgtc ttaaagaatt 60
tttaaaaaat tagtcatgag acttattcat ctttccaggg aacttctcga g 111

<210> 1461
<211> 173
<212> DNA
<213> Homo sapiens

<400> 1461
gaattcggcc aaagaggcca ttcaaaacta aaataaaaca tatgtgtcta tggttttcaa 60
ttggagtagt ctttcttact ttccccccttc ccctctttgg ttctcctaac cagcttagag 120
gacccaaaga gagcttaggg atagacacca gaatactctg tggaggtctc gag 173

<210> 1462
<211> 141
<212> DNA
<213> Homo sapiens

<400> 1462

gaattcggcc aaagaggcca ttcaaaaatc aagagtttga gagcgtccgg ctgaatgaga 60
cactttcatc attttctgat gacaataaga ttacaattag actggggaga gcacttaaaa 120
aaggagaata cagagctcga g 141

<210> 1463
<211> 123
<212> DNA
<213> Homo sapiens

<400> 1463
gaattcggcc aaagaggcca ttctgaggcg gttggtgggt caatggtgaa gatacagtct 60
tttcttaaat cccttctctt gctgaactcc tctggtggaa ttgtccatgg caggtcactc 120
gag 123

<210> 1464
<211> 105
<212> DNA
<213> Homo sapiens

<400> 1464
gaattcggcc aaagaggcca ttcaaatatg tatcggattg ttttaatgtt atatattgga 60
ttgtattcga tgttacaaaa ccaatattct atggagtccc tcgag 105

<210> 1465
<211> 117
<212> DNA
<213> Homo sapiens

<400> 1465
gaattcggcc aaagaggcca ttcaaagtat atcacacatt tagaagtaca aattaatcca 60
ttttgcttta tgaattcatt tttacattat ataacttctc ttacattctg tctcgag 117

<210> 1466
<211> 102
<212> DNA
<213> Homo sapiens

<400> 1466
gaattcggcc aaagaggcca ttcaaagaat tgaaacattt taatttcaaa ttcaaataga 60
acatttaaaa tgatttcatt attattaccc atactcctcg ag 102

<210> 1467
<211> 118
<212> DNA
<213> Homo sapiens

<400> 1467
gaattcggcc aaagaggcca ttcaaaaaaa ttttgcatca tacttatggg taatatcttt 60
ttcatatatt atttatcaaa gtatgaagtt gagtattttg cttgtaccac tcctcgag 118

<210> 1468
<211> 107
<212> DNA
<213> Homo sapiens

<400> 1468
gaattcggcc aaagaggcca ttcaaaaatc ataaatatag aaacagtagt aatacagctg 60
acattaccat ttaattttat attatgaaag caaatcatct gctcgag 107

<210> 1469

<211> 433
<212> DNA
<213> Homo sapiens

<400> 1469
gaattcgcgg ccgcgtcgac ccaaccccag gttatcttcc cctttgtctt ccagcccccc 60
agaaacagct acgactcaac ctacccaatc atttcatcat cagattgcca ctgtctctag 120
ttcaggtctc ttgggactgg cactcagaaa tctcataata aatcctcttg aggcttctca 180
tacactcgtc ttcttccaat cttctttccc tcaaaatctc atattttggt tccacttcac 240
ccaccgtcat tctccatatc actcccagga gttaggcaaa aagccccttc cgttcttccg 300
tatgttaaac ttagaatcac tctgttccct gctctgcgtt tctatttttt gttttcctcc 360
atttactagt agcttaacac tttctaacag tgttcttatt attgatacgt atctatctct 420
tccaaagctc gag 433

<210> 1470
<211> 158
<212> DNA
<213> Homo sapiens

<400> 1470
gaattcgcgg ccgcgtcgac ccctgtgtgt ttctgttact tgctagccac aaagtccctg 60
caaacagaaa ctttagatcc actgcctcct ttactcctcc tctctatagc gctgtgaagc 120
aaatgtcctg catcatcccc attgcacaca cgctcgag 158

<210> 1471
<211> 270
<212> DNA
<213> Homo sapiens

<400> 1471
gaattcgcgg ccgcgtcgac ctaaaattct gatttgcatt gtggttttta gggttcagat 60
tagcaagtgg gattgttttt tagcacttaa atccctcact tcatgctctg tttgcacaaa 120
tctaaagagg cactggtatg tctaaagagg cactggtatt gtttattacc tctagttgta 180
tttgactttg ggattgtaga gaaaaataat ttccttttgt gggatggggg aagaatccca 240
tgccagtatt catcatatgg gaccctcgag 270

<210> 1472
<211> 359
<212> DNA
<213> Homo sapiens

<400> 1472
gaattcgcgg ccgcgtcgac ctaattatgt aattatgtaa gctagctttt catgtttatg 60
tatgtatggt gtccccttgt gttattttcc tccctcttgg tttttgaatt agtgttaaat 120
agaatactgt ctagattctt aaaatatttt catttccatc atggttataa caaatttgct 180
gcatgcccaa actgacaaca gcaatcactg agggaacagg ttttgaatct ttcttttgtg 240
ttatgaagtt tatcgtctct acttgcttga gatttttgtt attttggggg tttggggggtg 300
ctttttgttt tgtttttgcc aaatgtaaca tgaaagcaga tgctgcagct tctctcgag 359

<210> 1473
<211> 407
<212> DNA
<213> Homo sapiens

<400> 1473
gaattcgcgg ccgcgtcgac gaaatcatgg actaccagag cagacttaag aatgctggtg 60
aagagtgcaa gagcctcagg ggccagcttg aggagcaagg ccggcagctg caggctgctg 120
aggaagctgt ggagaagctg aaggccaccc aagcagacat gggagagaag ctgagctgca 180
ctagcaacca tcttgcagag tgccaggcgg ccatgctgag gaaggacaag gagggggctg 240
ccctgcgtga agacctagaa aggacccaga aggaactcga aaaagccaca acaaaaatcc 300

aagagtatta caacaaactc tgccaggagg tgacaaatcg tgagaggaat gaccagaaga 360
tgcttgctga cctggatgac ctcaacagaa ccaagaagta tctcgag 407

<210> 1474
<211> 521
<212> DNA
<213> Homo sapiens

<400> 1474
gaattcgcgg ccgcgtcgac attgaattct catgcctcac ctctcctcag tagctgggat 60
tacaggcgtg caccaccaca ccctgctaat ttttgtattt ttttagtaga gacggagttt 120
tgccgtgttg gccaggctgg tctcaaactc ctggcatcaa gtaatctgcc tgcctcagct 180
tcccaaagtg ctgggattac aggcataagc caccgtgccc ggcctatttt cggcattttt 240
atatcctgtt gtatttaggc tctttttgta gacctcctat ttctagatct tttaaaaatc 300
caatcccaga gtttgttgtc tttttttctc tctctcattt aataggttga attttctttt 360
cctagtttga aatgtacaca tttcattgtg tttcagttaa aattttggtc attatcccaa 420
accaatctat gcttacattt atacgtttgg tttcttttat tgttgttata agtatcttta 480
tatcactcac tgccttcaac ataaatacct tgacactcga g 521

<210> 1475
<211> 381
<212> DNA
<213> Homo sapiens

<400> 1475
gaattcgcgg ccgcgtcgac agaagttgct ggtcttgaca tgaatatcag ccaatttcta 60
aaaagccttg gccttgaaca ccttcgggat atctttgaaa cagaacagat tacactagat 120
gtgttggctg atatgggtca tgaagagttg aaagaaatag gcatcaatgc atatgggcac 180
cgccacaaat taatcaaagg agtagaaaga ctcttaggtg gacaacaagg caccaatcct 240
tatttgactt ttcactgtgt taatcaggga acgattttgc tggatcttgc tccagaagat 300
aaagaatatc agtcagtgga agaagagatg caaagtacta ttcgagaaca cagagatggt 360
ggtaatgctg gcggtctcga g 381

<210> 1476
<211> 118
<212> DNA
<213> Homo sapiens

<400> 1476
gaattcgcgg ccgcgtcgac cttaggtcag gttctgtcaa gttaccaaca gaagctactg 60
attgtaaaat ttcaattaca ctcttatcct gtcaagtaaa atggtaggca gtctcgag 118

<210> 1477
<211> 179
<212> DNA
<213> Homo sapiens

<400> 1477
gaattcgcgg ccgcgtcgac tggaatcata ggatgtggag gatggtactc atacactgtg 60
tctgcctctg ggtgggggcc acaggactgg ttcagtcctg ctctggatgg agtcagtcag 120
ttgccagaat gcagaagtcg gaaaaacatc tcaaaagacc agtcttgcca gagctcgag 179

<210> 1478
<211> 279
<212> DNA
<213> Homo sapiens

<400> 1478
gaattcgcgg ccgcgtcgac taggagtgaa tatgtgggtc ccttttgtta tgcacaatag 60
aattgttctc ccaatttttt tttttttgc ctgtcacttc atactctatt ctatttactt 120

ccctttctag ttagtaaggc atgttgggtg aactcccctt ttttggcaaa aaggcattta 180
cctttctctt ccccattacc actaccagca caccaataca gattttcccc ctcgctcagg 240
gaggccatga ctggagggag gggtaaggag cctctcgag 279

<210> 1479
<211> 144
<212> DNA
<213> Homo sapiens

<400> 1479
gaattcgcgg ccgcgtcgac gtcttgggtc agattataaa aattacaatt gattacataa 60
aacttaatta acctttccct tcctcctcat agatactctt catatcaatt tatgtatttc 120
caagtactat acccattact cgag 144

<210> 1480
<211> 209
<212> DNA
<213> Homo sapiens

<400> 1480
gaattcgcgg ccgcgtcgac gccagcatgg tcaacttctg gcgagagctc tcttcctggt 60
atgtaaatgc ccacttcctc atgtcttcac aggaaggaaa ccaacaaata ggtctctctc 120
tcctctctcc tttctcctct ctcctctctc ctctttctct ctctctcccc accatctctc 180
tccttcccct ccctccccca gccctcgag 209

<210> 1481
<211> 532
<212> DNA
<213> Homo sapiens

<400> 1481
gaattcggcc aaagaggcct aagtgacttt agtagaagct attgagaaaa gactgatcag 60
ccctgaactg gcaaatatga tccaaataga tagttcagag ttcagcgatc acagggctca 120
gattgaaaag caagaaggga ttgaagtgtg tgcattacaa aatgaatttc taggaaagga 180
tatgttaatt gcttgtaatc agactgctga aatgagttgt aataaagtag aagagagtga 240
gagattattt caagttgaaa atcagtctgc acaagaaaag gttaaagtga gagtttctga 300
tggggagcag gcaaaaaaga gcagggaaat ttccttaaag gaatttgggt gcaaggatca 360
acgtaagcca agaatgtctt cagatgctaa agaatttatc agtatcataa atcctcataa 420
tcttaaaggt aaatccttgg gccaagtgtc attgacacac ccttactctg aatgtgattt 480
taaacttaaa gaagtggcta gaaataacat gggaaatgat acaaacctcg ag 532

<210> 1482
<211> 585
<212> DNA
<213> Homo sapiens

<400> 1482
gaattcggcc aaagaggcct agatcagtag cattaacaaa agttgcttta aaagccatta 60
tgtaaaacaa gacttgaaaa tgagtgaggg aattttagcg acactgtctg agcagcagtg 120
ggaaccatct tcgtttcccc tttgaactcc cagtgggatg ccctaccctg cgccccttagg 180
acccggactg accgtgtaca aaactttacg tgccaaaatt ctcagtgaat ttagcttttct 240
ccctcttttt gatgctgtaa tttttgttca tcatgttttg ctgtgatgtt acataggtag 300
atttgtatgt agttttaatg tcacctataa caaaatgtgt ttggtagcag attgtccaga 360
aagcatttta aatgaagagg tataaacccc taagggccaa aattctgtat attagattac 420
tcttaaacga aaaaccagct gccgcttcta tgtacacata ttacatacga gtaggcagca 480
gactttaaaa ataaaaaaaa cctaggcatg ttgatgttgc aaaatgctgt ataaagctga 540
aacctgttca ttcagtgcca ttgtagttga catgaagctc tcgag 585

<210> 1483
<211> 418

<212> DNA
<213> Homo sapiens

<400> 1483
gaattcggcc aaagaggcct aatttttttt gaggatttgt tttacttggg tgtcacattc 60
ataattttta atcctttaag gagaaaaatg tgcttattaa atttttggtc tctgaatgct 120
accaagtctt agtcatacag aacaatatgc tgcaactgtt tacaattcct aaaactgtaa 180
actcctcaag gacttggagg ctaaacatga agaatataaa attaagttga caatcactgt 240
ctcctgcata acactgactt cacttctctt gagaaatgtg catctgctaa tccatattta 300
ttacttttta ggggtgggtg aacccataaa taagatactg ttctttgaat gcctttagct 360
ggtgttattt accagtaatg cttggagaaa gaatccaaaa ttaccccccac tactcgag 418

<210> 1484
<211> 572
<212> DNA
<213> Homo sapiens

<400> 1484
gaattcggcc aaagaggcct aggcttcatc tttttgaatg catctctgta ggctttgtga 60
tttagggaag gatctgttaa actttcaagt tcagagaaaa gtttcttaaa cttcccaggg 120
attttctccc aggtctgcga cagtcgactg acagaagcag tgttgagacc catcacaatg 180
gcaaagaaag aattcaggtt tctctgggct ttgcagtgag ccgcaatttt gatgaatttt 240
ttcaccagct gcactcgctt gcccagctgg ctgcagagca gaatctccgt ggccacccaa 300
agctggacct cattgcatct ctggagcaga aggctgagat ttgcagtgtg ttccccactt 360
ccctgtctgc tgaacgtgaa gtagatcagc tcttgctcgt gaattgaatt gaatagactc 420
caatcaaaat tcattaattc cagagcaaga tcccaagtgt tcattcccaa aatcctcatc 480
gacctttgct gtgattcctc attttctgca aatgggttca aagtgtccgc caggtctttc 540
cggtagacat atattcgacc agatgcctcg ag 572

<210> 1485
<211> 451
<212> DNA
<213> Homo sapiens

<400> 1485
gaattcggcc aaagaggcct acttcttccg ggcccacgga aaaggcgggc gtagtgctct 60
tgcaccgctc cccaggggcc cccatggagc ccttctgccc tttgggtcca gtgtggcccc 120
tggcccctgc tgagcctgtt ttgccatatt tcccttggag gcctcgatct ccgcggtcac 180
ccttctcccc tttcaagata gtgatgttga tctggggcac ggcggtcgcc gggtacatgg 240
aggtaccagg gtcacagcag cgcaagcacc gggaagcagg gagcccctgg tcctgactgg 300
gcctgtattt ttcatgttgt tcttcagccc tctcggcatg gtccggaggg gacggcagct 360
cctcagtccc ctcccactcc tgctgttccc cctggacatg ggcacgcga ctcaggacca 420
ggccagaggc aaaggcaagg agcaggtcga g 451

<210> 1486
<211> 590
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (69)

<400> 1486
gaattcggcc aaagaggcct aagcaaatgc aaaaactctt tgagagggta ggagggtggg 60
aaggaaacna ccatgtcatt tcagaagtta gtttgtatat attataataa tcttataatt 120
gttctcagaa tcccttaaca gttgtattta acagaaattg tatattgtaa tttaaaataa 180
ttatataact gtatttgaaa taagaattca gacatctgag gttttatttc atttttcaat 240
agcacatatg gaattttgca aagatttaat ctgccaaggg ccgactaaga gacgttgtaa 300
agtatgtatt attcacattt aatagactta cagggataag gcctgtgggg ggtaatccct 360

gctttttgtg tttttttgt ttgtttgttt gtttgttttt ggggggtttt cttgccttgg 420
ttgtctggca aggactttgt acatttggga gtttttatga gaaacttaaa tgttatctgg 480
gcttatatct ggcctctgct ttctccttta attgtaaagt aaaagctata aagcagtatt 540
tttcttgaca aatggcatat gttttccact tctttgcatg cgtcctcgag 590

<210> 1487
<211> 596
<212> DNA
<213> Homo sapiens

<400> 1487
gaattcggcc aaagaggcct acttttgtct gcctcattct aaaatttaca cagtagacca 60
tttgtcatcc atgctgtccc acaaatagtt ttttgtttac gatttatgac aggtttatgt 120
tacttctatt tgaatttcta tatttcccat gtggttttta tgtttaatat taggggagta 180
gagccagtta acatttaggg agttatctgt tttcatcttg aggtggccaa tatggggatg 240
tggaattttt atacaagtta taagtgtttg gcatagtact tttggtacat tgtggcttca 300
aaagggccag tgtaaaactg cttccatgtc taagcaaaga aaactgccta catactggtt 360
tgtcctggcg gggaataaaa gggatcattg gttccagtca caggtgtagt aattgtgggt 420
actttaaggt ttggagcact tacaaggctg tggtagaatc ataccccatg gataccacat 480
attaaaccat gtatatctgt ggaatactca atgtgtacac ctttgactac agctgcagaa 540
gtgttccttt agacaaagtt gtgacccatt ttactctgga taagggcttt ctcgag 596

<210> 1488
<211> 503
<212> DNA
<213> Homo sapiens

<400> 1488
gaattcggcc aaagaggcct aagcctttct ttctgcagct aagggcagag gctgtgccta 60
gggctatacc accactagca tctgtatttg agactgtttc cttagatggg taagaggtgg 120
aaaacaaact tagtatcagg ggtccatgaa gcccatggca tcatttttga aaatatttct 180
agttttgtag ccaaagcaat tggttttagt aaaatgagac ttcttcagga gtcactcctt 240
tactgtggac ccattgctta gtgggaatgg aagtatatgt atctatcttg tgtattaact 300
tctgacttat ttatacaaga gcagctatag gagtttacaa aagaacttta agttattaag 360
ttactataaa tttggggatc ctagagtgat cttaaatatg gcaagataca gctcatttag 420
aataaaatct cacatccatt attttaaagg gaatgattgg ggggaaaaac tggtgaagaa 480
gaaatataaa aaggaccctc gag 503

<210> 1489
<211> 270
<212> DNA
<213> Homo sapiens

<400> 1489
gaattcggcc ttcatggcct acaaccccaa atattaagcc aagattaaaa aaccaaacag 60
ataagaatgg catattttta tctaaatgac ttaattttgt tctcttcttt aatgttatgc 120
tgtgggcaca attcaagcaa cttgacagct attttctctc agcataatga agaccttggt 180
ctactcactg ctcaactcca gtgctgctgc tgggaaattg gtagtcgttt atatcactct 240
gtccttctta cagttctagt tccactcgag 270

<210> 1490
<211> 352
<212> DNA
<213> Homo sapiens

<400> 1490
gaattcggcc aaagaggcct acgcctcccc tccgcaccca ccccccctgcg cccaggcttc 60
tccccggacac cgcagcctcc tgccgaagaa cccccgcacc ctcttaccta cagccagctt 120
cctcgggtgg gcctcagccc agacagccca gcaggtgaca ggaatagtgt gggcagtgag 180
ggcagcgtgg gcagcatccg cagtgccggc agcgggcaga gctctgaggg cactaatggc 240

catggccctg gcctcctgat tgagaacgcc cagccactgc cctctgctgg agaggaccag 300
gtgctgccag gactccaccc gccgtccctg gcagacaacc cctccactcg ag 352

<210> 1491
<211> 287
<212> DNA
<213> Homo sapiens

<400> 1491
gaattcggcc aaagaggcct agaagctctc tgtttggaag tggagacaaa gaccaaatat 60
agattcttat tgttgcaact ctataattcc ctcaccctta ttttcaccag gcaaaatttc 120
ttcgtttttt ttatagctca gttcagattt cactttattt gtgaaacctt ctcatctgtc 180
cgctagttaa aagaggcctt tctttcattc tcatggtttt gtctattgta aagtactatt 240
attattggtt tatgtatctt tcttcaaccc actgtgattg tctcgag 287

<210> 1492
<211> 275
<212> DNA
<213> Homo sapiens

<400> 1492
gaattcgcgg ccgcgtcgac tccctactcc ccaccccoga cccccattca gaaagaagca 60
ctgttgacac ttcaatgcat attctgaact ccaggtcctt tctttgcata catcaagctc 120
tcatcctctt gccggctctg tggtctgcaa acccagagag cagatgcttt gctcagcgct 180
cgtaccacgc cacgcaccca catgctctct ttgtacctgg gtttcaaccc acaggtcggg 240
cccctgtaag cccttggctc cccaagcttc tcgag 275

<210> 1493
<211> 393
<212> DNA
<213> Homo sapiens

<400> 1493
gaattcgcgg ccgcgtcgac agctgatcca agttttatgc tgatttttcc aaagatctct 60
ccctcctttt ccctccataa ctcacaggta gggaaggggg cggcattagg atggtgttac 120
tgtattggga ttttatgttg ttctgtcgtc ttcagcacag gtagtataag gttatattac 180
tgtagaacca cagtgcccat cttgccagca gtgcccgccc ccaccctcaa agctgagcag 240
gttgagcctt tgcctagtcg gggccagacc cctcagatgg ggatatccct gggggagccc 300
ggtgctgaac cagaagaggc ttcctggtgc ttctgtccta ggccaccact cctccagccc 360
tttgcccgca catacatgcc ccacaaactc gag 393

<210> 1494
<211> 269
<212> DNA
<213> Homo sapiens

<400> 1494
gaattcgcgg ccgcgtcgac aagatacaat aaaacatact taactgtttt aaaaagtgtg 60
tcataggagc ttttgaacat acaaatagaa tcatacttca atttcagttt atactgaaca 120
aaatacagtt tttctttgaa ttggtagtac ttcagaatct gagtgtctta acagtcattg 180
tgttagtaaa tttgagtgcc tcctgtatgc tgggtattca agatgctaag gatccatcca 240
gctttgaaca agacaaggcc cagctcgag 269

<210> 1495
<211> 309
<212> DNA
<213> Homo sapiens

<400> 1495
gaattcgcgg ccgcgtcgac gagcacttaa cttcaggtca gttgctgagg aagaggtctg 60

aaggtaatat tagtaccccc ccaactactt tcagctggaa acaagagttg tttgggccct 120
tactgagttc ctactttaga gtcaagggct ggccttcccc tgcatctgtc tgcatgtacc 180
tcacaggtga gcagataaca tatttgtgca gctattccct tatgatttcc tctctattag 240
agagaggtgg gagcctatga cagactgcag agtgtttgct ccattcttcc ccaccccata 300
gctctcgag 309

<210> 1496
<211> 314
<212> DNA
<213> Homo sapiens

<400> 1496
gaattcgcgg ccgcgtcgac agccatagaa gaaacttgag tatgcctggt caccttcttg 60
gatctgctgt ctaaattata tatatatttt actgcaggaa agtatacttc gtaaggagta 120
gtttttattt atttgtttat ttggttctca gtggaaccct gtcaaatccc ataaaagcgg 180
aaaaaaacaa aactcattag agtgttttaa attgaatgtt tgccttttac atatatttgc 240
tcttcagcat ggttcctaat ttgaatgtta catgtttaga aaaattttca gccaggtgcg 300
gtggctcact cgag 314

<210> 1497
<211> 303
<212> DNA
<213> Homo sapiens

<400> 1497
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc agcctgggtg 60
gcagagcaag tctccatctc acaaaaacaa gcaaacaaac aaaaaataaa caaaatcaaa 120
aacaggaaca tgaaaactgc ttttgttctc ttgtgtaata gatttacttt attttttttt 180
ctgtttcctc ttcatttttc tatttttctt tctttatcct ttttttgggg gggggcagaa 240
tctcactcag tcacccactg ccctgcagcc tgggtggcag agcaagtctc catctcactc 300
gag 303

<210> 1498
<211> 380
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (21)..(23)

<400> 1498
gaattcgcgg ccgcgtcgac nnnagtgtgg ggttttttcc ccccaccagg aagtggcagc 60
atccctcctt ctcccctaaa gggactctgc ggaacctttc acacctcttt ctcagggacg 120
gggcaggtgt gtgtgtggta cactgacgtg tccagaagca gcactttgac tgctctggag 180
tagggttgta caatttcaag gaatgtttgg atttcctgca tcttgtggat tactccttag 240
ataccgcata gattgcaata taatgctgca tgttcaagat gaacagtagc tcctagtaat 300
cataaaatcc actccttgca cagtttgatc tttactgaaa tatgttgcca aaatttattt 360
ttgttgttgt agctctcgag 380

<210> 1499
<211> 498
<212> DNA
<213> Homo sapiens

<400> 1499
gaattcgcgg ccgcgtcgac cctttctagc cttagacaaa tgatcaccat gttagcctta 60
gacgaagaag ctggctagtc ctttctgtga agctaataca atggtcattt ccagacaaat 120
ttaaaggaaa cactaaggct gcttcaaaga ttatctgatt cctttaaaat atatgtctat 180
atacacagac atgctctttt tttaagtgct tacattttaa tagagatgaa tcagttttgg 240

aatctaagct gtttgccaag ctgaagctac aggttgtgaa ataattttta acttttggaa 300
tcatactgcc tactgttact ctaaatagaa atatagggtt ttttttaatg tgaatttttg 360
cctatcttta aacatttcaa tgtcagcctt tgttaacctt aaatacactg aattgaatct 420
acaaaagtga accatctcag acctttactg atactacaac ttttgttttc tgatggccaa 480
aatacctaat acctcgag 498

<210> 1500
<211> 334
<212> DNA
<213> Homo sapiens

<400> 1500
gaattcgcgg ccgcgtcgac tgaagaagtg aaaatgacaa taatgactct caagaggctg 60
gcgatgtgac atggcaaatg tagaactgac ttaaattgaa caaaccctca ctgagcacct 120
ctgatgttga gcacctgctg aatactgagc actgaatggg ggaggggggag gggagcacgg 180
ggtgagtcaa cctgggactc ggtctcaggg atatgcctac caatagcggg tatcgtaagg 240
catgtaccca aacataacgg atgtaaggca gaaagtgatc ggagaaggaa tgagaaagtg 300
tgcgtgatgt taatgaaaag tctaacagct cgag 334

<210> 1501
<211> 220
<212> DNA
<213> Homo sapiens

<400> 1501
gaattcgcgg ccgcgtcgac aattctagcc ctctcagcaa cttaattata aaacaattac 60
ttctaatttc tcacttagtg ttggggaatt ttgcttggca ttttctaggg aaagaggaaa 120
agcagaggta gtggtagctt tgaaaatgtg gaaccttatg ctattatgta taacttcact 180
tcaatatggc tttacagaag acacagtcac ccaactcgag 220

<210> 1502
<211> 165
<212> DNA
<213> Homo sapiens

<400> 1502
gaattcgcgg ccgcgtcgac gggcaggtat tgaactctta agtacaaaat tattttccca 60
aagaatttta aaatatacta tcccactatc tttttgcatc cagcattagt aattatagga 120
ttattgctgg ttgctactct ttctgtctat cctcagtgtc tcgag 165

<210> 1503
<211> 614
<212> DNA
<213> Homo sapiens

<400> 1503
gaattcgcgg ccgcgtcgat gtacatatac ataagcatgc acacagacag acataaaaat 60
gataggatca tataagacat tgtatagact gttttatgat agggtaatac acttttcttt 120
tctttttctt ctttgtccag ctcttctgtt ctttatccat atcatactct atccctactc 180
aaggaaacct agcaacatgt ttatagttcc atatgtctca ttatgctcat atgtcattta 240
catggtattt tatatacagg gtttacacat ttatagtaaa cgatctttat atagtttata 300
caatatctgt ttttcttttc tctgcaatac aaacgtgttt catatccctc aaacacaccc 360
acacccctca cttacacatg tgttatcact gtttgctttt gtaaacttgt gttcaacgta 420
tacacattaa tcatttaagc ataccttgtg gaaatcctgc caacttgact actgtgcctc 480
caatttcttc ctttttatcc catcataata aacctggcaa taattgattc aaccatatgc 540
acattgatat cacttatgct gtttgtttat ttttactact acaaacatgc tacaacaaag 600
ttccgggact cgag 614

<210> 1504
<211> 329

<212> DNA
<213> Homo sapiens

<400> 1504
gaattcgcgg ccgcgtcgac aggtaagtca tttaatttca cttttcaggt ttgttttggg 60
atttgtctgg gggcagattg ttaaggcctg ttttagaatc agctaccctt gcattgtaaa 120
tggggcttct aagagcacca gatcgtggtc tcttggctcc cggcaaggca gagctgatga 180
gagaaggtcc tttgccgcag cactgcaggc aggatggtat agtttggtgg tttcttgctg 240
tgtgtgtttc tctgtgctgg gtgagggaga cagctgggag ttggccttta tccagtgccc 300
gagagagctg tggaagggat gagctcgag 329

<210> 1505
<211> 306
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (23)

<400> 1505
gaattcgcgg ccgcgtcgac agngaaatct gcctcctcca tgtctcaagc cacgtggaat 60
aaattgtgga aagacctgtg ctgtctggct tgtgccttta cacatgctgt tatctctacc 120
tcaaatgctg tcttccccca ctggctaacc cttgttatcc tttataacag ctcagaagtt 180
gcctgctcaa agacactttc ttggcctgaa ttagaactgc cctctcacgt gctacttcca 240
tcacagatct taccatctat tatattatta catacacaca cacacacaca cacacacaca 300
ctcgag 306

<210> 1506
<211> 353
<212> DNA
<213> Homo sapiens

<400> 1506
gaattcgcgg ccgcgtcgac cctttttca cacaggtgat agaaatcctt ctaactccct 60
gattctttca ctttatctta ctggtctcta catgtcagaa cacagaagtt gtgttttgtt 120
tcgttttgtt ttacagagct gtggtaagta ttggatgggc cattgtttgg atgtttcga 180
tgttctgtcc tttcttagat ctattcgggg gcatttgggt tgtctccaat ttgttgttac 240
ttcaaacaat ggtatactca atacagtgta ttagggtagg gatttttaca gaagaaacta 300
aacagccgtt agaaaattat tttttacat taactcaacc agttattctc gag 353

<210> 1507
<211> 331
<212> DNA
<213> Homo sapiens

<400> 1507
gaattcgcgg ccgcgtcgac ggaaaatgaa gctcttaaag atatgctgta aaacagccac 60
agagttcaca acaccttata tcataggtgt tcatgactcc taaaagtctg taagcccaag 120
aagacaagac catatctttt tcttagttaa tcatgatgga agtattgtgc agatttttaa 180
actagcttta ttgtggttta attgacatac aataagttgt atatatttga agtatatagc 240
ttgataagtt ttgatatgtg tataccaata aactcatgac gacaatcaga taatgaacat 300
atccaagacc ctcgagtaaa gttgactcga g 331

<210> 1508
<211> 229
<212> DNA
<213> Homo sapiens

<400> 1508

gaattcgcgg ccgcgtcgac gaggtcccct ttttttctaa atttctctgt gtgcttttct 60
ccccctgcta ctttttccat ccgttctctt tcactcttgc tctctttgca agtccctaaa 120
gtatcatcca ttttgccgtg tatttatggg tctccctcat tcttttctcc tcagtttttc 180
ctttttcttg ctgtcttggg gagcttctgc atgtgaccca attctcgag 229

<210> 1509
<211> 551
<212> DNA
<213> Homo sapiens

<400> 1509
gaattcgcgg ccgcgtcgac ccaacagatg agtctttttg gtactagata gggaagagtg 60
aatgtcctgt gttgatatag aattgtttta gttatctgtc cctgtcttaa tttctctgca 120
tatttagtgt aattatcttc ttgatctatg ttgtcttagg atgcaagggg gaatttgagc 180
atccttcctg caatctttcc ctcctatcag agtctcagaa tccactcttc tatttccatt 240
tgactaaatc ataggcatct aagagggagc cacctccgcc ccctactaac tagcagaata 300
agactgacca gtttccaact aatcaattac ttgagttacc atgtccggca gatttctact 360
ttgctgtatc tctcaactct gttgccttgt tcatttccag caccactctg ccagtccagg 420
ctttgatccg cacatagctg gactaactgc tcatctacct aatgtggctc attctccata 480
gcactatcag attaattttc ctaatgtggc acttgacccc tactactttc tgcttaaagc 540
acaacctcga g 551

<210> 1510
<211> 273
<212> DNA
<213> Homo sapiens

<400> 1510
gaattcgcgg ccgcgtcgac gctttttaaa aaaatttcag aactgtgtac tgtgatgaaa 60
ctgctgacga atcctcagga attaatgtgc atcaacccac tgcttttgct cacaagttac 120
ttcagctctc tggagtgtct ctcttctggg atgagttttc tgcatcagcc aaatcttccc 180
cagtgtgttc aactgcacca gtggaaactg agccaaagct ctcacctagc tggaaccccca 240
aaattattta tgagccacac cccacagctc gag 273

<210> 1511
<211> 291
<212> DNA
<213> Homo sapiens

<400> 1511
gaattcgcgg ccgcgtcgac aattatcata ttttccataa agagagcatt gatttcatcc 60
attggcatat tgagatgctt tcctgtttga cattggtcac agaatttaaa aggaaaaaca 120
acattactgc acattcagga atcagaaata gaagtaaagg tcaggatctt aaagggaatc 180
ttgacaggat atcaggcctg cctttaaaaa aattcagaca tgataagttt actaccaatc 240
atttttcaa taacaacaat aatatattta tattttccca tggaactcga g 291

<210> 1512
<211> 229
<212> DNA
<213> Homo sapiens

<400> 1512
gaattcgcgg ccgcgtcgac cgcgtttcag cgaagtcgca cgtgaaggat agcagtggcc 60
tgagaaagac ccagtcatgg cagcctccag catcagttca ccatggggaa agcatgtgtt 120
caaagccatt ctgatggtcc tagtggccct tatcctcctc cactcagcat tggcccagtc 180
ccgtcgagac tttgcaccac caggccaaca gaagagagaa accctcgag 229

<210> 1513
<211> 104
<212> DNA

<213> Homo sapiens

<400> 1513
gaattcgcgg ccgcgtcgac ccgccaccga aaatctgttc tgacatgaga atgttcacaa 60
aagacagcac ttctcgactt ctgctgataa gcttgggtct cgag 104

<210> 1514
<211> 357
<212> DNA
<213> Homo sapiens

<400> 1514
gaattcgcgg ccgcgtcgac aaattttatt gttgttttaa aaacctgtgt tttttatatg 60
aggtttaaaa aatccatatt tttcattact cctcttctag gttctgagtc ttctggtagt 120
gtagggtcat ctacaggctc tctttctcac atccagcagc ctcttccagg tacagctctc 180
agccagtctt ctcatggcgc acctgtcgtc tatccaactg tcagcactca tagttctctt 240
tcctttgatg gtggcctaaa tgggcaagtc gcatctccta gcactagctt ctttttgctt 300
cccttggaag cggcaggcat accacctggc agtattctga tcaacccact tctcgag 357

<210> 1515
<211> 237
<212> DNA
<213> Homo sapiens

<400> 1515
gaattcgcgg ccgcgtcgac ggtatttgtc tactgtatta acttcgacca tcccaataga 60
aacgtgccaa taaatcattg atgatcttta attgctgcct gtacggtgca ataataccaa 120
tatcagaggg actgcatcca gccttaacaa aaatggaggt taggaaaact atgagtttgg 180
cttctgttac attgctcacc accacctttt tcaacttgtt ctggcgctgg actcgag 237

<210> 1516
<211> 543
<212> DNA
<213> Homo sapiens

<400> 1516
gaattcgcgg ccgcgtcgac cgaggacaga agatagaaac aagagtttga ggtttggctt 60
tgattagaaa cttgggtggc tcaaaagaaa cttaccagaa gcacagtagc tgtaggtttg 120
gggtcccaaa agggtagcct gagcttttta gggctaaaac tgggaaagaa acacctaaac 180
tgtgctttaa actaaattta tgactgagtt tctgccatgt ggtgatttat agtatgtgct 240
ttcagattcg ccctacttta atcatgaaag cttcattcta tagaccacca cctgtgtgat 300
gtccttgttc tcaaagacga tttaaacttg gactgttttt cccagtaaaa gagatttgct 360
ttcagaatgt cgagtgtatt cataacggat ggttcttcat tacttacaaa tttttgtaat 420
taatcttctg atgaaacaaa aagctatgat gttgctgtta atgtgtattt gatagatatt 480
ggttgacaaa tgcaggctaa atgggatgtg gcaatacttt ggggccagat atagaggctc 540
gag 543

<210> 1517
<211> 431
<212> DNA
<213> Homo sapiens

<400> 1517
gaattcgcgg ccgcgtcgac caactgcatg gctccatttt ttcaggccat ccatcaacca 60
tggggtcctg gattcctctt tctcttacat cccatgttct attcattagc aactcttgtc 120
agtatagtct tgaaaataag ttggattatt tctaactacc tgttactgct cttgactttg 180
gacaatatgt tatcaaccag tgaccatttg aaagtataca aattatttga cttacttgag 240
caaaatcttc ccgtggcttc tcctctcacc cggaatccag cttgaagaat aaccactacc 300
tacatggccc tgcgcgctgc ggctccggac gccatcttgg cctcagctcc caaagcacct 360
tcccctctca ccgtgctcca gctgcgcgct gtgctcctcc ttactcctac gggatacccc 420

acccccctcga g 431

<210> 1518
<211> 361
<212> DNA
<213> Homo sapiens

<400> 1518
gaattcgcgg ccgcgtcgac gggaggtcaa agctgcagta agtcaagatt gcaacgctgc 60
actccagcct gggtgacaga gtgagaccct gtctcgaaaa agaaacatac ataaggaata 120
tattgtctca gatatctaaa gaatccagga gtacacctgg tgttggccac tgggtgatgt 180
ggtgtggaaa caatctttct ccatctctta ggtctactgt tttctgtgtc tcctccattt 240
taagatagac ttttgtaagt aaaagtttac tgtttccagt ggaaggaagt tgcctctttc 300
caaacagtac caataaaagt tccaaggctg actcatgggt ccaactatag cagtgctcga 360
g 361

<210> 1519
<211> 274
<212> DNA
<213> Homo sapiens

<400> 1519
gaattctgga gtcaaataca ccaagtcgga cttgcggtta atcgaagtca ctgagaccat 60
ttgcaagagg ctcctggatt atagcctgca caaggagagg accggcagca atcgatttgc 120
caagggcatg tcagagacct ttgagacatt acacaacctg gtacacaaag gggtcaaggt 180
ggtgatggac atcccctatg agctgtggaa cgagacttct gcagaggtgg ctgacctcaa 240
gaagcagtgt gatgtgctgg cgacgagtct cgag 274

<210> 1520
<211> 687
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (21)

<400> 1520
gaattcgcgg ccgcgtcgac ntacgcatgg gcactctgag ttcataggaa gatagttaaa 60
aagaaaatga gtataggatt tgaactaaaa ataacatggt acttgaagat tgacttgcaa 120
agtccagttc attattttga cagatgcatt tcaagtagag ttgccagaca aaatatagga 180
ttttgagtta gattagaatt tcagataaac agcaaataat tgttttaata taagtatgtc 240
cgccaaactg tagatatact gaaagctatt gctgtttatt gaatcaaaat ttaattgggg 300
gtctgtaatt cagtttgcca aatctggctc ccctagttcc acacaagtta atttcttgca 360
cattgtgata taggaggctg gataccatag atacggtaga gttgtacatt atccaggctg 420
cctgagtccc aaaccagtat ccattcctaa ggtcttatga ttaggataaa agattttcta 480
cttcagcaca aagtgccttt tgaaaatttg tgatgattat ttctggaaat ctgtcccatc 540
ttagcattgc tagagttggt ttatcatgag acataactca agagaaatta gctatactga 600
gatcatttta tcaaaggtac tcgtgacata ggcaatttga tatgtcccaa gtctgcctcc 660
aatgtcaggt gagttcccaa actcgag 687

<210> 1521
<211> 132
<212> DNA
<213> Homo sapiens

<400> 1521
gaattcgcgg ccgcgtcgac gagattgtgc ccctcttttc attctctccc aatagatctc 60
atgtctaaca ctactctaac tttgctcccc tctgagacca gcatgaactc cagttctttc 120
tggcctctcg ag 132

<210> 1522
<211> 324
<212> DNA
<213> Homo sapiens

<400> 1522
gaattcgcgg ccgcgtcgac gtgatcttca gttttcactt gcacctttga atattctgcc 60
atgtttgaat tccttagaat gatcaagcat cttttttgtt gttggggttt ggtttttttgt 120
ttggttttgt tttgtttgag acagagtttt accctgtcac atgggctgga gtgcagtggc 180
atggtcatgg ctcactgcaa ccttgaccat ctgggctcta gtgatcctca gcctccccga 240
gtagctgaga tcacaagtgc taattttgga aaaattgttt gtagagacag ggtcttacta 300
tgttataagc ccaggcctct cgag 324

<210> 1523
<211> 373
<212> DNA
<213> Homo sapiens

<400> 1523
gaattcgcgg ccgaggcaag aagttcccgt gtatacagat tctgaaccca ggcaagaagt 60
tcccatgtgt tcagaccctg aacccaggca agaagttccc acatgtacag gccctgaatc 120
caggcaagaa gttcccatgt atacaggccc tgaatccagg caagaagttt taatacggac 180
agaccctgaa tctaggcaag aaattatgtg tacaggccat gaatccaaac aggaagttcc 240
catatgtaca gatcctatat ccaagcaaga agactccatg tgtacacacg ctgaaatcaa 300
tcaaaaatta cctgtagcaa cagattttga atttaagcta gaagctctca tgtgtacaaa 360
ccctgaactc gag 373

<210> 1524
<211> 242
<212> DNA
<213> Homo sapiens

<400> 1524
gaattcgcgg ccgcgtcgac tcgagattta ctggcaactg ttcttttccc atcaaaaatc 60
agtgaatgtt tgctgagtat aaatgctgct tccttaaacc acttgtcgct ttaggatcaa 120
ctttacctgt accttttctc ctttcctccc ttgccacctc aggtgcaaat ctgaactcag 180
tgtctgcttc ttccattttc tcgtctctct cccctcttcc cccatcccgc gtttgcctcg 240
ag 242

<210> 1525
<211> 527
<212> DNA
<213> Homo sapiens

<400> 1525
gaattcgcgg ccgcgtcgac cttgaattct aaaagccaga gctggaaata accgaaaagt 60
cttaaggaag tgtgctgctg tggctgccaa taaaataaag ctaatgagtg atgtagaaga 120
gaattctagc tctgaaagtg tctgttctgg tcggaagctg cctcaccgca atgcttctgc 180
tgtagctaga aaaaagttat tacataattc tggaagatga acagagctta aagtcagaaa 240
ttgaagaaga ggagctaaaa gatgaaaatc aaccattacc agtgtccagt tctcacactg 300
cccagagcaa tgttgatgaa tctgaaaaca gagactcaga gtcagaaagt gatttgcggg 360
tagcccggaa aaattggcat gctaatggtt acaagtccca tactccagca ccttcaaaga 420
caaaatttct taaaatagag tcttctgagg aagactctaa aagtcatgat tcagatcatg 480
catgtaacag aactgctggc ccatcaacgt ctgtgcagag cctcgag 527

<210> 1526
<211> 388
<212> DNA
<213> Homo sapiens

<400> 1526
gaattcgcgg ccgcgtcgac ttcacatcgc tactgttatt atgctatttg ttagcaccat 60
tgccaatgtc tggttggttt ccaatacggt agatgcatca gtaggtcttt ggaaaaactg 120
taccaacatt agctgcagtg acagcctgtc atatgccagt gaagatgccc tcaagacagt 180
gcaggccttc atgattctct ctatcatctt ctgtgtcatt gccctcctgg tcttcgtgtt 240
ccagctcttc accatggaga agggaaaccg gttcttcctc tcaggggcca ccacactggt 300
gtgctggctg tgcattcttg tgggggtgtc catctacact agtcattatg cgaatcgtga 360
tggaacgcag tatcaccacc tgctcgag 388

<210> 1527
<211> 161
<212> DNA
<213> Homo sapiens

<400> 1527
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attcaatgca ttatacatcc ttaatcccca caacactcga g 161

<210> 1528
<211> 294
<212> DNA
<213> Homo sapiens

<400> 1528
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gacctaaaga gctggcaaat ctcccctatc cttccctatc tggctatctt gctgggcttg 180
caatgccagg gcctacttag aatagccaca gccacacatg agcatcatgg gagacttctg 240
ggggcaactt cagcttcttc ctctaaaatg attcccgact cccagatcct cgag 294

<210> 1529
<211> 452
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (424)..(427)

<400> 1529
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aaaattgaag aaagatttac aagaagttat agaactaacc aaagaccttc tgtcaactca 180
accttctgag acgcttgcaa gttcagacag ttttgcttct actcaaccta ctcattcatg 240
gaaagtagga gacaagtgta tggcagtctg gagtgaagat ggacagtgtt atgaagcgga 300
gattgaggag atagatgaag aaaatggcac cgctgcaatc acctttgctg gttatggcaa 360
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ggannnntgg caacaaaccc atgaacctcg ag 452

<210> 1530
<211> 369
<212> DNA
<213> Homo sapiens

<400> 1530
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gtataagtta ttaacaaaac tcaaaaacag ttaactgtgg ttggaaatat tcattctaaa 120
aatcaattta tgaaaataaa aaactcacca aaaaaatcat caagtaagta gaggagacat 180
aattggctga aataaacta ggagagaaaa aacccctaaa acccccctaa aactccaaat 240

cctcttttt tgattgttca ttttattgc tttgtttatt ctttcatggt tcaaattcct 300
ttagtatttt ttttaattgc aaaagcaatg agtgaggctt tcgggaaaag cagaaacgtt 360
gggctcgag 369

<210> 1531
<211> 211
<212> DNA
<213> Homo sapiens

<400> 1531
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gtctccaaac caataaaaaa ctaaaacttg tttccaagac tgggaggtaa agtaggctta 120
taaaacaata cagcaaaaga aagccaagtg gcctaattgt ttccagtgtg cttgccatct 180
tagcatggtt actttccaga tgtcactcga g 211

<210> 1532
<211> 211
<212> DNA
<213> Homo sapiens

<400> 1532
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gattacaaga tttccagaag ccctgaacaa ttcaatttca accatgcctc tagaacatcc 120
tctcttcaca aaaaacccaa ccttatctgc tcgtcccatg aaagcaggtt ttccagctaa 180
accaaggcaa atggcacaca caaaactcga g 211

<210> 1533
<211> 447
<212> DNA
<213> Homo sapiens

<400> 1533
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caggaaaagt ctgcaattaa aaaagctagc aaccttcaga aaaataaaac cgctagctcc 120
acgacaaagg agaaggagac aaaactacct ttactttccc gtgttccaag tgctggttcc 180
tctctagtac cattaaatgc taaaaattgt gctcttccag tttctaaaaa agataaagag 240
cgttcctcat ctaaagaatg ttctgggcat tctacagaat ccaccaaaca caaggaacac 300
aaagcaaaga ctaataaggc cgattctaat gtatcttcag ggaaaatttc tggggacct 360
ttgcgctcag aatatggcac tcctacaaag tctccccctg ctgctttgga agttgtgcca 420
tgtatcccaa gccatgcagc actcgag 447

<210> 1534
<211> 150
<212> DNA
<213> Homo sapiens

<400> 1534
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catgcctgag aggtaatgac aactaggagt tagtcagatt agtgcttggg tgaggcctaa 120
gaaggcactt atgaagctga gaagctcgag 150

<210> 1535
<211> 253
<212> DNA
<213> Homo sapiens

<400> 1535
gaattcgcgg ccgcgtcgac ctttagagac caatttgcct gaattttaaa atcttcctac 60
acacatctag actttcaagt ttgcaaatca gtttttagca agaaaacatt tttgctatac 120
aaacattttg ctaagtctgc ccaaagcccc cccaatgcat tccttcaaca aaatacaatc 180

tctgtacttt aaagttattt tagtcatgaa attttatatg cagagagaaa aagttaccga 240
gacagaactc gag 253

<210> 1536
<211> 273
<212> DNA
<213> Homo sapiens

<400> 1536
gaattcgcgg ccgcgtcgac gcaacatggc gtccaggtct aagcggcgtg ccgtggaaag 60
tggggttccg cagccgccgg atcccccagt ccagcgcgac gaggaagagg aaaaagaagt 120
cgaaaatgag gatgaagacg atgatgacag tgacaaggaa aaggatgaag aggacgaggt 180
cattgacgag gaagtgaata ttgaatttga agcttattcc ctatcagata atgattatga 240
cggaattaag aaattactgc agcagccctc gag 273

<210> 1537
<211> 347
<212> DNA
<213> Homo sapiens

<400> 1537
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caactactgt cctctttact agtagtccca tcaaaactgc tgttgtaccc gcttcacaca 120
tgagttctct aaatgtggtg aaaatgacaa caatatccct cacacccagc aacagtaaca 180
cccctcttaa acattctgcc tcagtcagca gtgctacagg aacaacagaa gaatcaagga 240
gtgttccaca gatcaagaat ggttctgtcg tgtcgcttca gtctcctggg tccaggagca 300
gcagtgcggg gggaacatct gctgtggaag tcaaagtgga tctcgag 347

<210> 1538
<211> 287
<212> DNA
<213> Homo sapiens

<400> 1538
gaattcgcgg ccgcgtcgac ctggctgatg gagcacgaag acgaccccga tgtggacgag 60
cctttagaga ctccccttgg acatatcctg ggacgggagc ccacttcctc agagcaaggc 120
ggccttgaag gatctggttc tgctgccgga gaagcaaacc cgctttgagt gaagaggaaa 180
gacaggaaca aactaagagg atgttggagc tggtggccca gaagcagcgg gagcgtgaag 240
aaagagaggt acgggaggca ttggaacgtg aacagcaaca tctcgag 287

<210> 1539
<211> 298
<212> DNA
<213> Homo sapiens

<400> 1539
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aaattggaag tggctaataa gaacaacccg gacacgtact gggtggccac gatcattacc 120
acgtgcgggc agctgctgct tctgcgctac tgcggttacg gggaggaccg cagggccgac 180
ttctggtgtg acgtagtcat cgcggatttg caccccgtgg ggtggtgcac acagaacaac 240
aaggtgttga tgccgccgga cgcaatcaaa gagaagtaca cagactggac aactcgag 298

<210> 1540
<211> 425
<212> DNA
<213> Homo sapiens

<400> 1540
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tcagatctca tgagacttat tcaataccat gagaacagca tgggggaact gcctccatga 120

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ttcaattatc tccacctggc cccacccttg acacatggga attgtaacaa ttcaagatga 180
gatttgggtg gggacagagc caaaccatat aattcttccc tggccctccc aaatctcaag 240
tcctcacatt tcaaaagcaa tcatgccttc cccaaagtcc cccaaactct tatttcagca 300
ttaactcaaa attccatagt ccaaagtctc atctgagaca aggcaagtcc cttccaccta 360
tgagcctgta aaatcaaaag caagtgagtt attttctaga tacacaggga tacaagcatc 420
tcgag                                                             425

<210> 1541
<211> 347
<212> DNA
<213> Homo sapiens

<400> 1541
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aagacctctt tgcttgttcc acttaggtcc tgccctccaa ctctcctgcc ggtgtcagcg 120
gtgaccttta ttcatgggtc cagtggacaa cctaatgctg tctttctgca ttctacaact 180
tcatttggca gtgttgactt ttccccactc tttgaaacac tcactgctgg tttccttggc 240
aggatgttct tctttccctc cccccacccc ttttctttgc cctttccttc actgtctgtt 300
tcgttttttt tcttctaccc agcactgaaa cctgggtgtt cctcgag               347

<210> 1542
<211> 282
<212> DNA
<213> Homo sapiens

<400> 1542
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ttgctttgct tgttctacta ctctacatta ggggagaatt tcgatcgcca ggccagcctt 120
cggcggtctc taatttacac agacactctg gtaagacgac cgaagaaagt caaaaggaga 180
aagactatta caggagtccc tgacaacata cagaaggagc tagcatcagg cactggccaa 240
gatgatgctg atggccactc agtgtacacc cctgatctcg ag                    282

<210> 1543
<211> 292
<212> DNA
<213> Homo sapiens

<400> 1543
gaattcgcgg ccgcgtcgac agcgttccct ttgctgcctc caccaccgtc actgttctct 60
ttccaaggag aacatcagtc ccattggatt gttttcttca ctagttgatt cccagggctt 120
ggagcacaga aggcacccaa taaaagtcat ctgaatgagc caattccttc tcccattttc 180
catgtggcta tttaaagcaa ctgtctactt tcctcccatc ttcaacctcc cccacctctc 240
agatgcctcc tacctcagag gagaaaataa atgctactct cttcaactcg ag         292

<210> 1544
<211> 218
<212> DNA
<213> Homo sapiens

<400> 1544
gaattcgcgg ccgcgtcgac gtcaggggaa ctaaaaaaga aaaaaacagt cttgcttgca 60
gcaggtgtct catgcactac tttcttcaat ccttttgtgc catagtggga atctggacct 120
ttgagtgttg cacatgctgt gtagcacaca ttgggcagga tctctatggg ttccttgaac 180
atgaccctga atgtgttagc tgtcccatca cactcgag                        218

<210> 1545
<211> 452
<212> DNA
<213> Homo sapiens
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<400> 1545
gaattcgcgg ccgcgtcgac actgaggagg tttgaggcgc gcgctctggg caggaagcct 60
ccccagcttt ctgaggatga tatctggcta aaaagcgagg gagacaacta tagtgccacc 120
ctcctggagc ctgctgccag ctctctttcc ccagatcaca aaaacatgga aattgaggtg 180
tctgttgcag aatgtaaaag tgttcctgga atcacctcta ccccacatcc catggaccat 240
ccctccgctt tctattcacc cccgcataat ggcctcctta ctgatcacca cgaatccctg 300
gataatgatg ttgccagaga gatccgctat ctagatgagg tgctagaggc caactgctgt 360
gattctgctg tggatggaac gtacaatgga acatcctccc cagagcctgg tgcagtggtt 420
ctggtgggcg gcctaagccc ccctgtctcg ag 452
<210> 1546
<211> 449
<212> DNA
<213> Homo sapiens

<400> 1546
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tggatggggc caaatactgc acccaggctt ccccatcaga atcagcacag acgcacctgc 120
atctaccatg tagtcttcca cagtatcctc tggtgggatg ctgggtggct gccaaatttt 180
cactaaagcc aaccatgcgg agaagcaccc tgggtctgtg cctccctgtg ggtatagtcg 240
gtgtttatcc agaactagaa gatacaatag caagggaaga tacaatagca agcattgctg 300
aatgctacag tgtaacactc tgaggctttt tgtgaatgaa ttcatttagt ccttgtaaac 360
ctctgggggt agctcaccat tctgtctcca ttccacagat ggagaatgag gcacagagaa 420
gttaagtaac ttgcccaact tcactcgag 449

<210> 1547
<211> 175
<212> DNA
<213> Homo sapiens

<400> 1547
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gattagatca tataagttcc agaagggcat gccaccacga attcttctta atactgatgt 120
agcccctttc atcagtgact ttactgcttt tcagaatgta gtcctggttc tcgag 175

<210> 1548
<211> 211
<212> DNA
<213> Homo sapiens

<400> 1548
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gttttatgtc aattgtgaaa ggaaaatgtt aggagtatgg tttttaaact tgggcttcat 120
tttaaaattt ttttttttaa acccagttat ttcacttgat ttgctagctt cagagaagag 180
atccgaatct gtgcccagcg ctgggctcga g 211

<210> 1549
<211> 240
<212> DNA
<213> Homo sapiens

<400> 1549
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caagtaatcc tgatgggttt acacttaaag aaaacctgtt gggtatgcag agaacaggat 120
aaaaattata aaataagaga ttggaatatg aagtattttg ccttaatatt tttcaatttc 180
agcctctctc tctctcagtg tctctctctc atgtctttct ctcaagcagg ccaactcgag 240

<210> 1550
<211> 210
<212> DNA
<213> Homo sapiens

<400> 1550
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cctttcccct ctcagtgagc ttctgcaaca ctagagttct ttgtgcaccc tatatacatg 120
agacactttc ttgccttgag gcctttatgc atggtgtttt tctgttcctg gtatgctttc 180
ctcccttcct tttgtctggc taagctcgag 210

<210> 1551
<211> 244
<212> DNA
<213> Homo sapiens

<400> 1551
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gagttttaca attttatctc ttatgcataa atctgtgatc catttgaagt taatttttgt 120
tttgttttgt tttgtttgtt tggttttttt tttggagatg gagtctcact ctgttcccca 180
ggctggagta cagtgtacag tggcacgatc tcagctgacc acaacctctg ccccccatct 240
cgag 244

<210> 1552
<211> 254
<212> DNA
<213> Homo sapiens

<400> 1552
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acaaaaaccc aagcatgagg aaggcgggtg ccacgtctat gtgggcttcg tgctgtgggc 120
tgctgaatga agtcatggga actggagctg tcaggggcca gcagtcagca tttgcaggag 180
ccaccggtcc attcagattt acaccaaacc ctgagttttc cacctaccca ccagcagcta 240
cagaagagct cgag 254

<210> 1553
<211> 186
<212> DNA
<213> Homo sapiens

<400> 1553
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aaaaaagaaa tagaacatct catccacatg tccatatcca ctaactggat ctttgttttg 120
ataatcctct tccctttctc tgcaggttta ctcccagtat atccatttct acctgagcca 180
ctcgag 186

<210> 1554
<211> 239
<212> DNA
<213> Homo sapiens

<400> 1554
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aaggaattga gatatataat tgagatttgg tgaaattgaa ggagaaaatt taagtgagtc 120
tttaaaatat attctgaatg aaaactgtat tgaggattca tttttgttcc tttttttttct 180
ttttctcttt tctccttttt cttcttttta atagtctagt tttaggcagc cacctcgag 239

<210> 1555
<211> 249
<212> DNA
<213> Homo sapiens

<400> 1555
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cttgtgagag atgctgagcc acaggaccta gctaagtggc atccatattt cagatccatg 120

gtaactgtaa gttagtaaac tttgttgttt taagccacta aggtttgggg taatttgtta 180
tgaagcaata aataactcat atgccaacta tgtgccaggc actattcttg gctctgggga 240
caactcgag 249

<210> 1556
<211> 210
<212> DNA
<213> Homo sapiens

<400> 1556
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tttttgctag gatagatctt tcacctctta gaaaatcact ctatctgatc tttaaatccg 120
tgagttggaa tgagaaatat tccacttgct aaaattttct tcagcttttt aactttttac 180
aatctcaaca ggtcaaaggc agatctcgag 210

<210> 1557
<211> 368
<212> DNA
<213> Homo sapiens

<400> 1557
gaattcggcc aaagaggcct actatattcc atacaattag atttgttctt gcctcaagac 60
ttcagtctga ttggatgttg atgctgtatt ttgcacatac tcatttgact gtgacagtca 120
ccattgggtt gcttttgatt ccaaagtttt cacattcaag caataaccca cgagatgata 180
ttgctacaga agcatatgag gatgagctag acatgggccg atctggatcc tacctgaaca 240
gcagtatcaa ttcagcctgg agtgagcaca gcttggatcc agaggacatt cgggacgagc 300
tgaaaaaact ctatgcccaa ctggaaatat ataaaagaaa gaagatgatc acaaacaacg 360
ccctcgag 368

<210> 1558
<211> 474
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (19)..(23)

<400> 1558
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tagcacagtg aggcccaggg gctttgaact tcctcctaga tttcagttct gaagccttca 120
cttactggct gagagacttg ggcaaattat ttaaccttcc tgtgagtatt ctcatcgata 180
aaatgggagt actgacagta ctgtatctcc tcagaggatt gttgcaaaga ttagcttcag 240
taatgtgcac agagtactta ggacaatacg aagtgtgcag taatacattg ccattaaaaa 300
gagatctcgg gtgtccgcgg gttgccgaat ggagctgagc atcttgatgg aaccagggat 360
ctcagggtga agactgaagc cctaggctat ggcggaagtt gggtgcctga agtacaagtg 420
gaaatatgcc aactgaaccc taaaccgtcg attgaattct agacctgcct cgag 474

<210> 1559
<211> 128
<212> DNA
<213> Homo sapiens

<400> 1559
gaattcggcc aaagaggcct aattgaatgt taccagaggc tttttctcca cctatggaga 60
taatcacatt ttttgttctt cattctgttg atttatcatg tttattgttt tgtgtatgtt 120
ccctcgag 128

<210> 1560
<211> 250

<212> DNA
<213> Homo sapiens

<400> 1560
gaattcggcc aaagaggcct agctctctat acagatcttc caaacagaca agcccttcag 60
agccaagatt gcttcaatca ccagcatgtc agaaatagca tcaccagctg cctggttaaa 120
caagtcaata atgttttcaa gcatcttagc agcttttctt ttcttatctt ccagttgttc 180
tgctgattgt tttatcttca tttcaacagc tgtactaaac agtgcagtgc catgcccatt 240
tgctctcgag 250

<210> 1561
<211> 229
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (21)..(22)

<400> 1561
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taaattaaac ctacaggtag atattccagt agaatagtta caacaataga gagtaaatta 120
gcatatgtga aaaatggaca tatgctctgg tttttttttt tttttttttt caatagagat 180
gggattttcc tatgttgccc aggatggtct cccaacttct ggcctcgag 229

<210> 1562
<211> 209
<212> DNA
<213> Homo sapiens

<400> 1562
gaattcggcc aaagaggcct agtcgtggtg caattgaggt ttctgttggt ccaatggtat 60
ctgttattct ggcttttatt tggcttttcc tagcagctgc ttcactagca gtcatcggtt 120
caggaagagc tgaaggaata gaagaattat tgatgttgga gactggacaa tcctttttgg 180
caaatttaaa tgcaaaatat gcactcgag 209

<210> 1563
<211> 278
<212> DNA
<213> Homo sapiens

<400> 1563
gaattcggcc aaagaggcct actttgaagc atacataata ggtgttggtt tattttttcc 60
tcatggaatc atgggtagtt tcattgcagc tcatctcttt ctgtttgttt cgtatagggc 120
tgatagttca ggaccattca gaccccatgt tcagttcata tgcctataag tcccactacc 180
tactgaatga atcaaatcgt gctgagttga tgaaattacc tatgattcct tcttcgtcag 240
cttccaaaaa gaaatgtgag aaaggtaata atctcgag 278

<210> 1564
<211> 234
<212> DNA
<213> Homo sapiens

<400> 1564
gaattcggcc aaagaggcct accctgatgc gtgatgatgg caccaccctc tcagatgata 60
ttcacgagct ttatgtgtac aagtgtgatg agaatagcac gtttaataac catgctctgt 120
acctgggcct gccctgctgc aaagaggact acaatggctg ccctaatatt ccttctagcc 180
tcatcttcca gcgcagcacc aaagagtctt tcttcatctc cactacagct cgag 234

<210> 1565

<211> 294
<212> DNA
<213> Homo sapiens

<400> 1565
gaattcggcc aaagaggcct agtttctgta agatacagcc ttagtgaata aaacctggaa 60
tttcttaggt gagcggaaaa ataagaggct ttaaactctt catccacaaa tacaagcatg 120
aaaacttgga cactttttaa aaaaatttc tttttatgg cggttgaggt ggaggtttca 180
ctgtgttgcc taggctgccc tcaaattcct gggctcaaag gatccgccta cctcaggctc 240
cctagtagct gggactacag gcacatgcca ccgcacctgg ctctcccact cgag 294

<210> 1566
<211> 203
<212> DNA
<213> Homo sapiens

<400> 1566
gaattcggcc aaagaggcct atttaaacag caaactgtgt gcactcaact gttatcacaa 60
tgttgtcaag aggtctgtgt cttttaccat tttacacaca attgttcatt acagtatgtt 120
gtcagcctcg tggaaaccag gggtgtgtca tggtaagcag tggtggtagt gcacctagct 180
tttatattat cacctgcctc gag 203

<210> 1567
<211> 241
<212> DNA
<213> Homo sapiens

<400> 1567
gaattcgcgg ccgcgtcgac atgcagcccg ggaaagagct agagacaggg aagaacgatt 60
ggcagcactc acagctgctc aacaagaagc tatggaagag ttacagaaaa aaattcagct 120
caagcatgat gaaagtattc gaagggacat ggaacagatt gaacaaagaa aagaaaaagc 180
tgctgagcta agcagtgggc gacatgcaaa tactgattat gcccccaaac tgaccctcga 240
g 241

<210> 1568
<211> 366
<212> DNA
<213> Homo sapiens

<400> 1568
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agaatgtctg aacacatgtt tggcaatcag aaagttattt ctccaacctc ccttccccaa 120
cacacctctc aaaacctttc ttttccattc tatcactcag tttcatctct cctggactac 180
tgctctccga cagggttttc agccttttgt ctactactcc ttcaaaccat cccaaacctg 240
ctattacaaa caacattcaa aaatcagaaa tttgatcatg gcactccctg tcacaaatcc 300
tcctatggtg ataacattca gaacaaatct gcattcagag aaagtccacg tgtcccctgc 360
ctcgag 366

<210> 1569
<211> 236
<212> DNA
<213> Homo sapiens

<400> 1569
gaattcggcc aaagaggcct acgtcgattg aattctagac ctgcctccag cccataggct 60
aattgatatt cttaacgagg gaaggcaagc acctcatgaa aggttttgtt tgtgttttct 120
tttttctttt tatctctgtt tctagagaca gcaaccttat cagtccagca gatcttaata 180
gactagaaag aagccaggag agtattaagg aactcttaac acaagagaat ctcgag 236

<210> 1570

<211> 184
<212> DNA
<213> Homo sapiens

<400> 1570
gaattcggcc aaagaggcct agcaagattg ttttctggga acagctgtat atgaaatgtt 60
gattctcagg gagacaccta gacacctgaa ttgcagcaga cattttatgg tgttgctaag 120
ttgctggtcc ttctcatcag tagcaggcct actctcactg tcacatatct cccacggtct 180
cgag 184

<210> 1571
<211> 184
<212> DNA
<213> Homo sapiens

<400> 1571
gaattcggcc aaagaggcct aagatagttc acaatttatt ccgtgtatcc aagcctgcgt 60
aaacgggaat ttgctaaagc aaattgggaa ttggggatta actaaaggga attgtgagaa 120
agagaaagaa caacttttaa gaagtatgtt aactgtcata ttttcactta aggggctcct 180
cgag 184

<210> 1572
<211> 238
<212> DNA
<213> Homo sapiens

<400> 1572
gaattcggcc aaagaggcct acgagatgaa tttctatgca ttattggaaa ataaggacaa 60
agtcttccta tttatcatgt tgtggattat tgatggaaga tgctgtggat tggctcagtc 120
aacatccact tcaccctcaa acaggtatgc cttcctgcaa agcaaaagga atcccaaaac 180
ctcttgcagc tatagttgcc aaaagcaatt tcagttctgc caaccagagg gactcgag 238

<210> 1573
<211> 219
<212> DNA
<213> Homo sapiens

<400> 1573
gaattcggcc aaagaggcct agattgaaag tgatacaatt tgaatattgg tatattgtca 60
ttggtcagta atggaaaaat gagattccac cagtgggtta ctcttttctt gtcttggttt 120
gctatgcctt atcccagatc agtgttttgt tccatcccta tggtcatctc taaagccctg 180
acaggagcat cccagactgg agaaatgcag caactcgag 219

<210> 1574
<211> 236
<212> DNA
<213> Homo sapiens

<400> 1574
gaattcggcc aaagaggcct aatttgcatt cccttagagt cttctatttc tgtttttacc 60
aaagcagtct tcatcattga aagcagcaga gctgttttgc tcttaattaa ctaatttaat 120
aaaaaccagg gatttatttc aatcttgaaa taattgcctt ctgtcgaaca gtttaaaatc 180
atacagttag caaaaattta agaataatct aaatgaaaat tagaggggca ctcgag 236

<210> 1575
<211> 199
<212> DNA
<213> Homo sapiens

<400> 1575

gaattcggcc aaagaggcct agtgatctat ccccatctga gcccgacaag ttttggagta 60
atttattaga cagagataac taatacaaat ttttcagtgg acaatatatt cctgtttttg 120
gatattgctg tcattggaag actgtgccag aaggtaaatg aaggtgggtg taatgtttca 180
tattagaaaa atcctcgag 199

<210> 1576
<211> 243
<212> DNA
<213> Homo sapiens

<400> 1576
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ttgcaggtta gctgaagtga aatcaagtca agaatattgt ctgaggaaat atcaagttac 120
tgtaaaggta aatccatcaa gaatatctaa agtcagggag gaaaaaaaaa gaatttagtg 180
tttatctatg tatgttactt catgattagt agatccaata tgagaattaa tgtggtgctc 240
gag 243
<210> 1577
<211> 252
<212> DNA
<213> Homo sapiens

<400> 1577
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gtcaattata tgtgtgcgtt attatttatt ctattatttg ctacaaatca agctcagttg 120
atcatttcca tgtcattaga agataagtgt atctttctga gggctaaggg tcatgctgag 180
ctagaaggtt gcaaggctgg agaggaagtg ccttctctcc agcgtcagca aaggctgcgg 240
gcagggctcg ag 252

<210> 1578
<211> 230
<212> DNA
<213> Homo sapiens

<400> 1578
gaattcggcc aaagaggcct agagagattg cttttctctg aatcatttca ttctagactt 60
tcatcatttc ctgctaagtt gtaatgttac ctgtcttctc cttagtctct agcttatctg 120
aattttattc tgttattgcc gcacaaatta ttatcaagtt ccactttggg ctgggcgcag 180
tggctcacgg ctatagtcct agcactttgg gaggccgagg cagactcgag 230

<210> 1579
<211> 233
<212> DNA
<213> Homo sapiens

<400> 1579
gaattcggcc aaagaggcct accttttttc ccccatcatt ttgcatctct tgccaaactt 60
taaccttgca gttctccatc cctcatcaaa tgccatcctc tgggatctgc ccattgcctt 120
gtttgcctga ctcaccatca tgcttagcat cttttgggca ctcagtcctg tttttggcct 180
ctttacttgg acatcatttt aactgtcact cttcgaacac cttgaatctc gag 233

<210> 1580
<211> 219
<212> DNA
<213> Homo sapiens

<400> 1580
gaattcggcc aaagaggcct aatttaaagt gctgctttgg attctctgga gcattatgca 60
ttatagttgt tatccaaaga cttttttgaa aatatgcaga aatttgtggt aattatgtat 120
ttgtgtcttg tgacaattat gttttataga cctacactag tgccaggtca ctattgtaag 180
atgttaaaat ctcaagaaaa tttcacagat gcactcgag 219

<210> 1581
<211> 199
<212> DNA
<213> Homo sapiens

<400> 1581
gaattcggcc aaagaggcct acgtcgattg aattctagac ctgataacaa aggcttgtct 60
tattcctgat atcctatcat catctttacc aatttctggc aattatatcc ctgggcctaa 120
gttcccattt ttgtatcctg cctcataccc caagtctctc atgaagtggg gtcctgcttt 180
gctctacaca ggactcgag 199

<210> 1582
<211> 272
<212> DNA
<213> Homo sapiens

<400> 1582
gaattcggcc aaagaggcct aattgaattc tagaccccc gccagcttcc cacacctcat 60
acgcagccac atctgcccta ttctccatgc tttccagctt gcctgccctt cctcatctct 120
ccctgcctgt gcagacctcc acccttcttt cctccacccc tccatccccc aatgcttgta 180
gaccttccat tcattccgtc tcatcgtgcg tggtctctga tcgtccatca cctgaccttc 240
tccaggactg tcttctcacc cttcccctcg ag 272

<210> 1583
<211> 408
<212> DNA
<213> Homo sapiens

<400> 1583
gaattcggcc aaagaggcct aggagtggag gttcaggacc aaggggcttc tggtcctcca 60
gcccctgtac tcggccatgc cctgcggtca ctgcggttgc cgcccctaat tgtgccaaag 120
gctgacccgg cctgggctgc gtacaccctt gccctgcttt gccttaaagc ctcggggtct 180
gcccggcccc tcgcccctgc ctggcactgc tcaccgccca aggcgacgcc ggctggacca 240
ggcactgctg gcctttctcc tgcccggcct cggaaccagc ttttctctct tacgatgaag 300
gctgatgccg agagcgggct gtgggcggag ctgggtcagt cccgtattta ttttgctttg 360
agagagaggc accctaaacc gtcgattgaa ttctagacct gcctcgag 408

<210> 1584
<211> 266
<212> DNA
<213> Homo sapiens

<400> 1584
gaattcggcc aaagaggcct atgtgaatat tgtaaaagtg ctgtatgttt agtagtgttg 60
tgtgcctggc agtgctgact atgactactg tgccatctgt ctgtgacctt gatgtcaggt 120
acctggccat ggggctacca gcaaggatgt gcaaaggaag aaccgctgcc cctgccctca 180
gcttccttat gcccgagcca ctacttatcc gtgaatgtga gtgccaagag aaacctaatt 240
tggtggggaa gccaaggcat ctcgag 266

<210> 1585
<211> 298
<212> DNA
<213> Homo sapiens

<400> 1585
gaattcggcc aaagaggcct agctgtgttg ccattagaac atttaaatga gtttcattct 60
gagttttgta ttgttaaact gtgtctggaa actaaacttt ataatgtgtt acattttagg 120
tcagaagaca tgtcttcatc tacatggcat ctttccttac ctctatgtgc catacgatgg 180
ttatggacag cagccagaaa gctatcttcc tcagatggca ttcagtatcg acagagcact 240
taatgtggct ttaggcaatc catcttccac tgctcagcat gtgttgatga aactcgag 298

<210> 1586
<211> 276
<212> DNA
<213> Homo sapiens

<400> 1586
gaattcggcc aaagaggcct agaataccat cgttaacaag atataaatcc tttacatatc 60
atgcttccca taccttttcc tttcattctg cttacgtaca atacttacct tgaaagttag 120
cagtgaacac tcccagtcac catgcatagt ggaaagcttc aagaaataag aataataata 180
aaaaagttaa aactataatg ataacttggc cgggcacact ggctcactcc tgtagtcccg 240
gcgctttggg gggccgaggc gggcggatca ctcgag 276

<210> 1587
<211> 186
<212> DNA
<213> Homo sapiens

<400> 1587
gaattcggcc aaagaggcct atggtagttg aagagagaac gtttaatctt caattcctct 60
tgcaggtagg cctcgaactg ggcatcaata tattctacta tcggcttata gctgtcatct 120
ttatttatct ggtctccaaa tcccacggtg tcaacaatgg ttaacttcag ccgtacattg 180
ctcgag 186

<210> 1588
<211> 427
<212> DNA
<213> Homo sapiens

<400> 1588
gaattcgcca aagaggccta gatcctcaca cctaagccat gttttaggtc cagctacctc 60
ctccatatca cagcagaagc tgcagtttca acaggtgtag tagcttgccc acaccttggt 120
gactaagtgg gggcagcagg ttttgaatct gggtggactg cagctggaac ccacatactt 180
aatccatacc ctagaatcta ggtaggaaag agaacatgct ttatctgggg cccaggaaat 240
gactgtggga ggcagtgcaa ggaattgagg ccagtgaggt gggcaggagg ccaatgatca 300
cggccccttg ttgcctttgc aatgcagttg ggtacatgtg acagtcattg aagaatgtca 360
aaggtcaggg atgagattgt atgacatgat cagacctgtg ttttagccag atcactccgg 420
gctcgag 427

<210> 1589
<211> 410
<212> DNA
<213> Homo sapiens

<400> 1589
gaattcggcc aaagaggcct agacaacttc agcagtcggt acaagtcaca tttcattttg 60
attgaataca tgatcttgaa cagctcctgt acttgctctt tgtaaaaaaa aataaaatta 120
ttttgaatta ttctaccttt gtaaacaatt ggctaaaaga atcatcttta agaaattaag 180
ccatttacat gtttgtgttt ttctatagca gagcattata ttttgcatta tatgtttcaa 240
cctagtctaa gtgggtcttt tttacatttt tcaagaacgg atttcctgga atacagcgat 300
ataattttgg ttgtcaaatt cctaatgcaa ccatttagtc taaacttagt catttatttg 360
tgacaataag atgtgttcag gggctccctg tttttaagag actcctcgag 410

<210> 1590
<211> 318
<212> DNA
<213> Homo sapiens

<400> 1590
gaattcggcc aaagaggcct aggacatgag tgactgaagg aacgaatatt tggagtggtc 60
aactaacatc aaaagagact ttcacattaa agtgagagat acttttggga gtagaattga 120

agttctttgc tctcttttgc ttgaaaaggg cagatttctt taggcagtag ttaggaatag 180
catcttgata tgagcaagat gaaacgtggc tgtcaaggga atcctctaaa atgcttttat 240
ctcactatga agctattttt aaaagttaca tgtttattac taattataat tttggttacg 300
aaacaggaac aactcgag 318

<210> 1591
<211> 208
<212> DNA
<213> Homo sapiens

<400> 1591
gaattcggcc aaagaggcct actctctttt aaataaactc cattcttccc attccatgat 60
gtcctctaac tctgctctcg ctttttctgc tcctgtttat tctcccctca ctccctgtct 120
cctggcattg ttcactccgc tgtgctccat tgccagaacc gtggaggaaa cccctccccg 180
ctgcagccca cccctctcct tcctcgag 208

<210> 1592
<211> 303
<212> DNA
<213> Homo sapiens

<400> 1592
gaattcggcc aaagaggcct agacagttca actagaagag actggtaaga gattgcagtt 60
tgcagaaagc agaggtccac agcttgaagg tgctgacagt aagagctgga aatccattgt 120
ggttacaagg taggaacaga gttttaaact tgtacaaagt ttaatcattt caaattttgg 180
cattgtttta aaagacaaca ctattctgga taacctggtt tcttcctgat gaacagtttg 240
tttggttgtt gttttaacat aatacttttt ttctgttgta gtattgttgg agactctctc 300
gag 303

<210> 1593
<211> 189
<212> DNA
<213> Homo sapiens

<400> 1593
gaattcggcc aaagaggcct actttaatgc ctttggcctt ccattctgat ttctctgatg 60
agaatattgc tggccctgct ttccctggta ggtatttgcc aggcccaatg ctttaacctt 120
aagctgatac tttgctttag atgtcagtct cgttaccagc agccttttga cccaacaacg 180
gcactcgag 189

<210> 1594
<211> 291
<212> DNA
<213> Homo sapiens

<400> 1594
gaattcggcc aaagaggcct agtaaaaatg aaaatgaaag atacatactt tatgccattc 60
atttgtatga atataggaaa gcacttgaac ttttggcctg tctgtggtcc ttcagaattg 120
ggcagtggaa catcctgtgg gaagcactgt catgtgggta cctcagagcc tgccctctct 180
tttcagcctt acctcactgc acagctccag ccaaagggcc acgtgcacca aagggtcaca 240
cctgaccagc ttttaatcat tccatacact gaaatgcctt cactcctcga g 291

<210> 1595
<211> 416
<212> DNA
<213> Homo sapiens

<400> 1595
gaattcggcc aaagaggcct atcccggagc aagcgggcaa agctgctcaa aaaggaaatt 60
gcccttctcc gaaacaagct gagccagcag cacagccagc ccctgcccac ggggccaggc 120

ttggaaggct tcgaagagga cggagctgcg ctggggccgg aggcgggcga ggaagtcctt 180
ccgaggttgg agactcttct gcagccaagg aaaaggtcgc ggagcacatg cggagactcc 240
gaggtggagg aggagtcccc aggaaagcgc ctggacgcag gtctcaccaa cggctttggg 300
ggtgcgagga gcgagcagga gccgggcggc ggcctgggga ggaaggccac accccgacga 360
cgctgtgcct ccgagtccag catctcctcc agcaacagcc cgctctgcga ctcgag 416

<210> 1596
<211> 297
<212> DNA
<213> Homo sapiens

<400> 1596
gaattcggcc aaagaggcct aaaaagacat ggagaaatca ggttttttg gtgaaaataa 60
acatcaatac ccattttgac gtgaatatct aaagtgttat gaaaccaact acatatattt 120
ttaaaatgct ggggctcata cgtgaagggt gagcactgtg ggcaaatttg gaaagattct 180
ctacatttaa agattattta agggactggt attatatgca caggataggc taaataatca 240
gtcacaacag attctggagt gaactgggga gaagtatggg atagtgcaga gctcgag 297

<210> 1597
<211> 217
<212> DNA
<213> Homo sapiens

<400> 1597
gaattcggcc aaagaggcct agttgaactg tgtgttatct gatttctaaa ctcgtgactg 60
ttcccacaca tcttgacctc cggttgtgaa tataaacaga gacatttaga tgagcatgtc 120
taatggtcat attaactcta gaatttggag actcttgagt ttctttcttt tttcttttt 180
tttggagaca gagtctcgct ctgtccccaa gctcgag 217

<210> 1598
<211> 403
<212> DNA
<213> Homo sapiens

<400> 1598
gaattcgcgg ccgcgtcgac cataccagaa ttttaggatt ttattttacc ttctaatata 60
taattagttc taaatgtgtg ttaacccttt tttcccccaa tttaagggtt tgtgttttca 120
tatcttatct ttttggattg ctcttataat aatgaactct tcctgtatag gtatgaaatc 180
accagaagaa caactggtgt gtgtgccacc acaggaggcc tttcctaacg acccccgggt 240
aataaataga cagagaagtt ctgattacca gtttccatcc tctccattta cagacacact 300
aaagggcacc actgaggatg acgtgttgac aggtcaggtg gaggagcagt gtgtgccagc 360
agcagaggca gagccgcctg cagtgagcgt aaccacgctc gag 403

<210> 1599
<211> 117
<212> DNA
<213> Homo sapiens

<400> 1599
gaattcgcgg ccgcgtcgac ggtgtagatg atgtttgggg tcaatttctt ctcctgcctc 60
ttcacagtgg gctcactgct agaacagggg gccctactgg agggaaccca actcgag 117

<210> 1600
<211> 103
<212> DNA
<213> Homo sapiens

<400> 1600
gaattcgcgg ccgcgtcgac cgagcatcct aggatatcca aaaggctaga gtttggagag 60
gaaagttaat ctatttatga agtttaggaa aggcatcctc gag 103

<210> 1601
<211> 355
<212> DNA
<213> Homo sapiens

<400> 1601
gaattcgcgg ccgcgtcgac atcacgaggg cttcccttca gagagctgac aatattaaca 60
gcacagagaa tactaggtct gttgattaaa actcaaggct tcatactgta agggccccaa 120
aggaagcatt aaattgggcc ataggaagga caagtcacat ccagtttagt gatcaatggt 180
ggtttgggaa agaaataaca gaattctact cctacatgat agggagagac tacagaggcc 240
acctagacca acaaactctg ccatcaggtc cttgaatcat tgctaccatg tcctggtggt 300
ggttgtagca ttgctagtga tatgtaactc attacctact tatgcaaacc tcgag 355

<210> 1602
<211> 613
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (592)..(601)

<400> 1602
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tttcagaaag aactcatacc agtttggtct tatgtctttt cttaagttct tactgtgatg 180
atatggttca ttaaaattat tttttttctg atacattcta attaacatga aatcctttat 240
gtactgcact agctttaaaa aataataata attttaagag actccaatga acattaatgc 300
atttttttat ttatgcacag caattatatt ccagaagtga gaatcatgtc aattcccaac 360
cttcgctaca tgaaggttag taccttgctc attaacagga agaaaaaggg attgatcaat 420
gatgtgtgta catgtgtatg tgggtggcag tgtgtgtatt tggcacagga tccagtgagc 480
aagggataga aaagaagaca gtttgggata ataaagacta aatttgttga cactgagatt 540
cttgacaaca gcatctgatg aaaagtaggg agaaggagca gggtgcacat tnnnnnnnnn 600
ntgagtactc gag 613

<210> 1603
<211> 337
<212> DNA
<213> Homo sapiens

<400> 1603
gaattcgcgg ccgcgtcgac gggcgaggtc ggactggaag gtaaaaggtc tgccagagtc 60
ttgggagaag agaggtccca gtggggactg gtacgtgtca gcctgtccac actgcttcct 120
caggtgggta cagtaattgt gagcgacctg cgtcacaggg tagatactga actggcagag 180
agcaccttca aactggactg catgcgggtt catcttccca aagaggaagg agcccccagg 240
gtcgagtgca gggtcccctg tggaaaggca gcaggacagg cacccggcgc tgcccgcagg 300
cagtcaccag agtgactgtg cggcatcgga gctcgag 337

<210> 1604
<211> 458
<212> DNA
<213> Homo sapiens

<400> 1604
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cattcctgct cctggcgctc agcaccgctg cccaggccga accggtgcag ttcaaggact 120
gcggttctgt ggatggagtt ataaaggaag tgaatgtgag cccatgcccc acccaaccct 180
gccagctgag caaaggacag tcttacagcg tcaatgtcac cttcaccagc aatattcagt 240
ctaaaagcag caaggccgtg gtgcatggca tcctgatggg cgtcccagtt ccctttccca 300
ttcctgagcc tgatggttgt aagagtggaa ttaactgccc tatccaaaaa gacaagacct 360

atagctacct gaataaacta ccagtgaaaa gcgaatatcc ctctataaaa ctggtggtgg 420
agtggcaact tcaggatgac aaaaaccata gtctcgag 458

<210> 1605
<211> 416
<212> DNA
<213> Homo sapiens

<400> 1605
gaattcgcgg ccgcgtcgac cttaaaagtt atagatttgc aaatttcaaa gaaagccgtc 60
ttatttaatt gatatattga aatttataac tcacctttca gtggaatagt ttttgtaaat 120
tcatgagaaa gaaacaaaat atcaatttat agtagttgat ggtgttataa atccagaaga 180
agctctataa cattataaaa atcaagattg gttgctcaca ttttagagta ccaaaggcag 240
caaaatgatg taatttataa ataataaatc ttaaactgtt gataaaccaa actctgaagt 300
atttttaaag aggtttattc taagccaatg agtgaccata gcccaaggag cagtctcaag 360
aggtcctgag aaagtgtgca ctgggtgttg gagttacatt ttagggagta ctcgag 416

<210> 1606
<211> 242
<212> DNA
<213> Homo sapiens

<400> 1606
gaattcgcgg ccgcgtcgac cctaaaccgt tgattgaatt ctagacctgc ctcgagtcca 60
ggatattgac ttctgaattc ttaagttttc ttcttcccag ctctatgagg ccactaatag 120
ctctatcaat gttattggcc ctcatcccag gcaacactca gcttctcagc tttttgcctt 180
cccagaatca gcaaatacat tcagctaaga aaaaaaaaat agctgcagca catcagctcg 240
ag 242

<210> 1607
<211> 297
<212> DNA
<213> Homo sapiens

<400> 1607
gaattcgcgg ccgcgtcgac aatcaggaat ttgaagaaaa tggaaatgtt tacatttttg 60
ttgacgtgta tttttctacc cctcctaaga gggcacagtc tcttcacctg tgaaccaatt 120
actgttccca gatgtgtgaa aatggcctac aacatgacgt tttccctaa tctgatgggt 180
cattatgacc agagtattgc cgcggtggaa atggagcatt ttcttcctct cgcaaatctg 240
gaatgttcac caaacattga aactttcctc tgcaaagcat ttgtaccaac actcgag 297

<210> 1608
<211> 366
<212> DNA
<213> Homo sapiens

<400> 1608
gaattcgcgg ccgcgtcgac cattgacttc ttctaccggc cgcataccat caccctgctc 60
agcttcacca tcgtcagcct catgtacttc gcctttacca gggatgactc tgttccagaa 120
gacaacatct ggagaggcat cctctctgtt attttcttct ttcttatcat cagtgtgtta 180
gctttcccca atggtccgtt cactcgacct catccagcct tatggcgaat ggtttttgga 240
ctcagtgtgc tctacttcct gttcctggta ttcctactct tcctgaattt cgagcaggtt 300
aaatctctaa tgtattggct agatccaaat cttcgatacg ccacaaggga agcagaagtc 360
ctcgag 366

<210> 1609
<211> 120
<212> DNA
<213> Homo sapiens

<400> 1609
gaattcgcgg ccgcgtcgac gtgcattata gtgatttcag tagattcaca ctcaaatctt 60
ttcagtgtca tacatttatt aagccataaa gttatgaaac cctcagctct tgtactcgag 120

<210> 1610
<211> 209
<212> DNA
<213> Homo sapiens

<400> 1610
gaattcgcgg ccgcgtcgac tgacaccttt ccccaaatat agattacaat aaagaaggct 60
actaaatgca tctgaaaagg tggatcctga ctactgttag gctagactcc ctaagctccc 120
actatgccca gctaatttgt ttttgtattt ttagtagaga cagggtttca ccatgttggc 180
caggctggcc tcgaactcct gacctcgag 209

<210> 1611
<211> 230
<212> DNA
<213> Homo sapiens

<400> 1611
gaattcgcgg ccgcgtcgac attctagacc tgcctcgagt ctacccagga ctgcttgttc 60
tttcttaaaa ccttaagcta actgtaggtc atcattcaca tgccaaaaat ccagccatgg 120
cttctctttc aaaattaaca gtgaatatct tatccctagg cccattccta ctctccagcc 180
ttaaccttct tcccttctgc cactgctatc aagaacccgg cccactcgag 230

<210> 1612
<211> 387
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (380)

<400> 1612
gaattcgcgg ccgcgtcgac tgggccttta gaagacttgg cttcttcact ggagagcttt 60
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agggtgcatc ctctgtgctc gggctgactt caccgtcacc tggtttcttc tccttcaggg 180
aaaagggttt cttattgggg cttattttct tcctgtgcca aaagatagcc atgtctttat 240
gcaaactttt ccccttcttt ctagccaggg ctgcagatgc atgatcaaag aaatgtacca 300
ctgcaagctt tttgctgcgc ctggtaaaga tgcgctgcac tttagcaatt ttgccaaaat 360
ggttctccag aatggaacgn tctcgag 387

<210> 1613
<211> 273
<212> DNA
<213> Homo sapiens

<400> 1613
gaattcgcgg ccgcgtcgac gtaggaattc caggttcagg ttccagcaca gccaattaat 60
tcacaggatt gttgtgtgaa ctgaatgaaa cacacacata tgaaaacaag gtatcttgat 120
aaatcagtaa cttttataac accgttgtgc caaaaaaaag ccttacttta ttactttatg 180
tgcattgtct cattaatatc ttctagtgtc tgtgattgtc aggtcagcac tgtcagccac 240
ttcaaagaag aagagaatag gggagatctc gag 273

<210> 1614
<211> 345
<212> DNA
<213> Homo sapiens

<400> 1614
gaattcgcgg ccgcgtcgac gttcttagta tttaagaggc cttcataatc acagaagaga 60
gtgatattat aggattagaa cattgtattt ttggttttgg gtgctgaagt tctaatctta 120
cctctgaagt gatcctgata ttttgccaaa gttgtgactt taatattctg tggcttgtaa 180
ttgtgatttt tctaatacca gagtagaatt ctggggagga atttttctaa acccaaatac 240
ctcaatttga agtgaggctt ggctttaaat aataacacat ttgagtttga gcttttcctg 300
caattaagtg gtatgctgca aaaaggaatt cggttagcgc tcgag 345

<210> 1615
<211> 288
<212> DNA
<213> Homo sapiens

<400> 1615
gaattcgcgg ccgcgtcgac cgattgaatg gggtttttgt gggttctttt tgttgatatt 60
attgttgttt tctgtttgtt tgtttgtttg tttgtttgtt tgttttttat ggtcaggcca 120
cttgtctata gtcctgctgt ggtttgcgtg ggtctgcttc agaccctagt tgcctcagtt 180
tttcccatac ctgaaggtat caccagtgaa agctgcaaaa catcaaagat ggcagcctgc 240
ttcttcctct gcttcttcct cgccgcagct catgcctgta atctcgag 288

<210> 1616
<211> 163
<212> DNA
<213> Homo sapiens

<400> 1616
gaattcgcgg ccgcgtcgac gtgttcccga cacaaagaaa tgataaatgc ttcaggtgat 60
agatatgcta attatcctcc ttttatcatt acactttata caaatgtatc aaagtttcac 120
actggctggg cccggtgact cacacctgca gtccgaactc gag 163

<210> 1617
<211> 292
<212> DNA
<213> Homo sapiens

<400> 1617
gaattcgcgg ccgcgtcgac attttaaaac agctgtccat actttcttga acctaagcat 60
acaattgaac tgtttccact gcacccgtcc taacatttct ttttgtctca tttctctttg 120
tggctaatta ttaagataat ataaacttgc attaataaat ttaatgagaa agtgtttagg 180
ctatgtgtgg cagctcacat ctgtaacccc aacactttgg gaggctgagg caggagaatc 240
tcttgagccc aggatttcga gatcagcctg ggcactactg caagacctcg ag 292

<210> 1618
<211> 368
<212> DNA
<213> Homo sapiens

<400> 1618
gaattcgcgg ccgcgtcgac cacacagtgt taccggatga ggagtctggt cttgctttgc 60
tttctctgcc ttttctgtct tgtcattggc tctcccgccc tcctacacgc accccgcctg 120
ttgcttctct tattctccag ttcccttcca atccccccttc acttctcttt actcccctcc 180
cccaggtcag tgctcggcgt ttcctccctc tttctgttct cccatcctcc cgggcagctg 240
tctctgtcgt gttctgtctc ctgctctccc gccctcctac acgcacccgc ctgttgcttc 300
tctcattctc cagttccctt ccaatccccc ttcacttctc tttactcccc tcccccaggt 360
cgctcgag 368

<210> 1619
<211> 108
<212> DNA
<213> Homo sapiens

<400> 1619
gaattcgcgg ccgcgtcgac ggtgggtcaa tcatcagttt aggctgccat aactaatatc 60
atagacggtg gcttaagcaa cagaatgtat tttctcacac tactcgag 108

<210> 1620
<211> 287
<212> DNA
<213> Homo sapiens

<400> 1620
gaattcgcgg ccgcgtcgac caagaagttc aggaacaagt ctcccaaaaa aactgaaatt 60
gtactgctct aatgttaaag tcaccttttg catttctctg gctaggagtg aggggaactg 120
ggaagaatga attcctgaca cacctttctt tgggtttttt tttggctttt gcagtgcctg 180
catctaccta cagcccgtcc ccaggggcca attacagtcc cactccctac accccctcac 240
ctgtccccac ctacactcca tccccagcac cagcctatac cctcgag 287

<210> 1621
<211> 129
<212> DNA
<213> Homo sapiens

<400> 1621
gaattcgcgg ccgcgtcgac gggtccccct ttccccagtc ttaacaacaa aaaacaaaaa 60
accagcctgg agatctacat tgtgatgctt tttaataact tgactccttt cttggccagc 120
tgtctcgag 129

<210> 1622
<211> 336
<212> DNA
<213> Homo sapiens

<400> 1622
gaattcgcgg ccgcgtcgac taaaatcaga acgtcagctc ccggtttgtt aatgggcagg 60
tgttttccaa aatttgttgg taaagctttt gtttggatat tcaaatttat ttccccttga 120
aacaaatata tctacttagt aaatatctgt ggaattatct tttaagctat gagtagcaaa 180
aaaggtggcc tttgtgtcac ccacttaccc ctcctcttta gctcctgggg cagacatctg 240
gaattcttcc tagcactctt cctgctgata ccagatacaa ctgcagtagt tcataacatg 300
accctgcagg tgcccacaac caaggcatta ctcgag 336

<210> 1623
<211> 301
<212> DNA
<213> Homo sapiens

<400> 1623
gaattcgcgg ccgcgtcgac ggattaccag cacctcaggc cacaaagcat ccatcagcgg 60
ggcgtcctaa ctgtggacca cctctgctgg cgtgtgggca gtgactccca cattcagcgg 120
gcgccacacc cacccaatat gcatgtttgg ggtgaggcac ttgttctgga ctccttcaca 180
ctacagggta gctataacca gcctctgggc ctgtccagca cccagtcaga taccctttttt 240
cttgattgta ccattcgagg acttcaggtg gaagcatcag atacctgtgc ccacactcga 300
g 301

<210> 1624
<211> 202
<212> DNA
<213> Homo sapiens

<400> 1624
gaattcgcgg ccgcgtcgac tggagatgag tccttggttc caattcatgc tgtttatcct 60
gcagctggac attgccttca agctaaacaa ccaaatcaga gaaaatgcag aagtctccat 120